CodeWarrior™ Development Studio 8/16-Bit IDE User's Guide

Revised: 27 September 2005

freescale semiconductor

Freescale, the Freescale logo, and CodeWarrior are trademarks or registered trademarks of Freescale in the United States and/or other countries. All other trade names and trademarks are the property of their respective owners.

Copyright © 2005 by Freescale Semiconductor company. All rights reserved.

No portion of this document may be reproduced or transmitted in any form or by any means, electronic or mechanical, without prior written permission from Freescale. Use of this document and related materials is governed by the license agreement that accompanied the product to which this manual pertains. This document may be printed for non-commercial personal use only in accordance with the aforementioned license agreement. If you do not have a copy of the license agreement, contact your Freescale representative or call 1-800-377-5416 (if outside the U.S., call +1-512-996-5300).

Freescale reserves the right to make changes to any product described or referred to in this document without further notice. Freescale makes no warranty, representation or guarantee regarding the merchantability or fitness of its products for any particular purpose, nor does Freescale assume any liability arising out of the application or use of any product described herein and specifically disclaims any and all liability. **Freescale software is not authorized for and has not been designed, tested, manufactured, or intended for use in developing applications where the failure, malfunction, or any inaccuracy of the application carries a risk of death, serious bodily injury, or damage to tangible property, including, but not limited to, use in factory control systems, medical devices or facilities, nuclear facilities, aircraft navigation or communication, emergency systems, or other applications with a similar degree of potential hazard.**

How to Contact Freescale

Corporate Headquarters	Freescale Corporation 7700 West Parmer Lane Austin, TX 78729 U.S.A.
World Wide Web	http://www.freescale.com/codewarrior
Technical Support	http://www.freescale.com/support

Table of Contents

I Introduction

1 8/16-Bit IDE User's Guide Overview 13

Release Notes . . . 13
Licensing . . . 13
CodeWarriorU.com . . . 14
Manual Conventions . . . 15
Figure Conventions . . . 15
Keyboard Conventions . . . 16

2 CodeWarrior IDE Overview 17

Development Cycle . . . 17
CodeWarrior IDE Advantages . . . 19
IDE Tools Overview . . . 20

II Projects

3 Working with Projects 25

About Projects . . . 25
Project Manager . . . 25
Build Targets . . . 27
Managing Projects . . . 29
Advanced Projects . . . 32
Custom Project Stationery . . . 32
Subprojects . . . 33
Strategies . . . 34

4 Project Window 37

About the Project Window . . . 37

Project Window Pages 39
Files Page 39
Link Order Page 43
Targets Page 43
File, Group, Layout, and Target Management 44
Build-Target Management 48

5 Working with Files 51

Managing Files 51

6 Dockable Windows 57

About Dockable Windows 57
Working with Dockable Windows 59
Dock Bars 63

7 Workspaces 67

About Workspaces 67
Using Workspaces 67

III Editor

8 The CodeWarrior Editor 73

Editor Window 73
Editor Toolbar 75
Interfaces Menu 76
Functions Menu 76
Markers Menu 76
Document Settings Menu 76
Version Control System Menu 77
Other Editor Window Components 77
Path Caption 77
File Modification Icon 77
Text Editing Area 78

Line and Column Indicator 78
Pane Splitter Controls 78

9 Editing Source Code 81

Text Manipulation 81
Symbol Editing Shortcuts 83
Punctuation Balancing 84
Code Completion 85
Code Completion Configuration 86
Code Completion Window 88

10 Navigating Source Code 95

Finding Interface Files, Functions, and Lines 95
Finding Interface Files 95
Locating Functions 96
Going Back and Forward 97
Using Markers 98
Remove Markers Window 98
Symbol Definitions 100

11 Finding and Replacing Text 103

Single-File Find 103
Single-File Find and Replace 105
Multiple-File Find and Replace 108
In Folders 111
In Projects 112
In Symbolics 115
In Files 117
Search Results Window 118
Text-Selection Find 120
Regular-Expression Find 122
Using the Find String in the Replace String 125
Remembering Sub-expressions 125
Comparing Files and Folders 126
Comparison Setup 126

File Comparison 130
Folder Comparison 132

IV Browser

12 Using the Browser 137

Browser Database 137
Browser Data 137
Browser Symbols 140
Browser Contextual Menu 140

13 Using Class Browser Windows 143

Class Browser window 143
Classes pane 149
Member Functions pane 151
Data Members pane 151
Source pane 152
Status Area 153

14 Using Other Browser Windows 155

Multiple-Class Hierarchy Window 155
Single-Class Hierarchy Window 158
Browser Contents window 159
Symbols window 160
Symbols toolbar 162
Symbols pane 162
Source pane 162

15 Using Browser Wizards 163

The New Class Wizard 163
The New Member Function Wizard 168
The New Data Member Wizard 169

V Compilers and Linkers

16 Compilers 175

Choosing a Compiler 175
Compiling Projects 175

17 Linkers 179

Choosing Linkers 179
Linking Projects 180

VI Preferences and Target Settings

18 Customizing the IDE 183

Customizing IDE Commands 183
Commands Tab 185
Pre-defined Variables in Command Definitions 188
Customize Toolbars 192
Kinds of Toolbars 193
Toolbar Elements. 193
Modify a Toolbar. 193
Customize Key Bindings 196

19 Working with IDE Preferences 201

IDE Preferences Window 201
General Panels 203
Build Settings 203
Concurrent Compiles. 204
IDE Extras 205
Plugin Settings. 207
Shielded Folders 208
Source Trees 210
Editor Panels 213

Code Completion 213
Code Formatting 215
Editor Settings 217
Font & Tabs 219
Text Colors 221

20 Working with Target Settings 225

Target Settings Window 225
Target Panels 227
Target Settings 227
Access Paths 229
Build Extras 232
File Mappings 234
Source Trees 237
Editor Panels 237
Custom Keywords 237

21 Preference and Target Settings Options 239

A 239
B 241
C 242
D 244
E 245
F 249
G-I 250
K-L 252
O 254
P 254
R 255
S 256
T 259
U 260
V 263
W-Z 263

VII Menus

22 IDE Menus 267

Windows Menu Layout 267
File Menu 267
Edit Menu 269
View Menu 270
Search Menu 271
Project Menu 272
Window Menu 274
Help Menu 275

23 Menu Commands 277

A 277
B 278
C 280
D 283
E 284
F 285
G 287
H 288
I 289
K-L 289
M-N 289
O 291
P-Q 292
R 293
S 296
T-U 299
V-Z 302

Index 305

Introduction

This section contains these chapters:

- 8/16-Bit IDE User's Guide Overview on page 13
- CodeWarrior IDE Overview on page 17

1

8/16-Bit IDE User's Guide Overview

This chapter of the *CodeWarrior™ Development Studio 8/16-Bit IDE User's Guide* is a high-level description of documentation and training resources for learning to use the IDE.

- "CodeWarriorU.com" on page 14—free, Internet-based instruction for CodeWarrior products. Use this resource to learn more about the CodeWarrior Integrated Development Environment (IDE) and computer programming.
- "Manual Conventions" on page 15—some common typographical conventions used in this manual and other Freescale documentation.

Release Notes

Please read the release notes. They contain important last-minute additions to the documentation. The Release Notes folder is located on the CodeWarrior CD.

Licensing

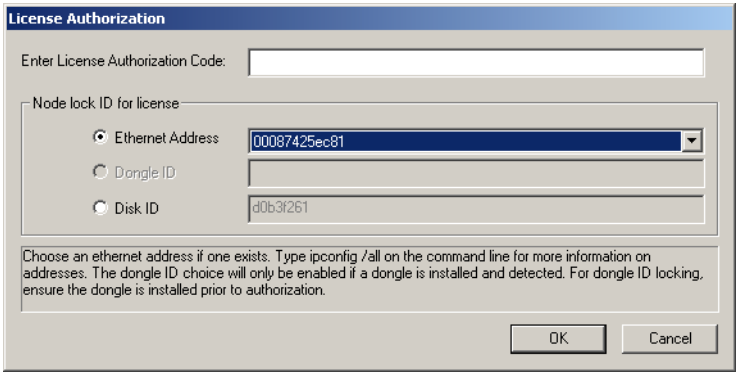
Web-based licensing is available. It is a server licensing solution that generates FlexLM v8 or later based license keys automatically over the world wide web through a registration/activation process. You can register and activate permanent, node-locked license keys.

Freescale products are shipped to customers with registration cards that contain a unique registration number. Products that ship with a one year annual support certificate will also have a unique registration number.

The registration website can be reached by selecting the **Help > Register Product** menu command from the IDE's main menu. Registration from the website collects the registration code and verifies it against the correct product and gathers contact information.

An email will be sent to you with the License Authorization Code and instructions. In the IDE you can select **Help > License Authorization...** to display the License Authorization dialog box. Figure 1.1 on page 14 shows the License Authorization dialog box.

Figure 1.1 License Authorization


License Authorization
Enter License Authorization Code:
Node lock ID for license
Ethernet Address
00087425ec81
Dongle ID
Disk ID
d0b3f261
Choose an ethernet address if one exists. Type ipconfig /all on the command line for more information on addresses. The dongle ID choice will only be enabled if a dongle is installed and detected. For dongle ID locking, ensure the dongle is installed prior to authorization.
OK
Cancel

Enter the License Authorization Code and select an ethernet address from the Node lock ID for license dropdown list, if one exists. After entering the authorization code, the CodeWarrior IDE will make an HTTP call to the Freescale licensing server with the activation code and generate the permanent license keys. The resulting license keys are automatically updated into the license.dat text file of the CodeWarrior product executing the authorization. You can also manually edit the license.dat file per instructions provided in the License_Install.txt file in the root folder of your CodeWarrior installation path. If the IDE evaluation period expires prior to activation, you will have to manually edit the license.dat file.

CodeWarriorU.com

CodeWarriorU.com offers a wide range of free, Internet-based courses in a wide variety of computer programming topics. Use this supplement to the CodeWarrior documentation to acquire more experience using CodeWarrior products.

CodeWarriorU.com courses include:

- Text-based instruction
- Expert instructors
- A variety of self-assessment and study materials
- Interactive message boards for communicating with instructors and students

CodeWarriorU offers many courses, such as:

- Learn Programming in C

  For beginning programmers.

- Introduction to Java

  For beginning and experienced programmers. Take this course to learn how to create Java software.

- Introduction to C++

  For beginning and experienced programmers. Take this course to learn how to create C++ software.

- Intermediate C++

  For programmers who completed the Introduction to C++ course and have basic C++ programming knowledge. Take this course to learn the foundation needed to create more sophisticated C++ software.

To find out more, visit this web site:

`http://www.CodeWarriorU.com/`

Manual Conventions

This section explains conventions in the 8/16-Bit *IDE User's Guide*.

Figure Conventions

The CodeWarrior IDE employs a virtually identical user interface across multiple hosts. For this reason, illustrations of common interface elements use images from any host. However, some interface elements are unique to a particular host. In such cases, clearly labelled images identify the specific host.

Keyboard Conventions

The CodeWarrior IDE accepts keyboard shortcuts, or *key bindings*, for frequently used operations. For each operation, this manual lists corresponding key bindings by platform. Hyphens separate multiple keystrokes in each key binding.

2

CodeWarrior IDE Overview

The CodeWarrior™ Integrated Development Environment (IDE) provides an efficient and flexible software-development tool suite. This chapter explains the advantages of using the CodeWarrior IDE and provides brief descriptions of the major tools that make up the IDE.

This chapter contains these sections:

- "Development Cycle" on page 17
- "CodeWarrior IDE Advantages" on page 19
- "IDE Tools Overview" on page 20

Development Cycle

A software developer follows a general development process:

- Begin with an idea for new software
- Implement new idea in source code
- Have the IDE compile source code into machine code
- Have the IDE link machine code and form an executable file
- Correct errors (debug)
- Compile, link, and release a final executable file.

The stages of the development cycle correspond to one or more chapters in this manual.

Figure 2.1 on page 18 depicts the development cycle as a flowchart. Table 2.1 on page 19 details the different stages and their corresponding sections in this manual.

Figure 2.1 The Development Cycle diagram

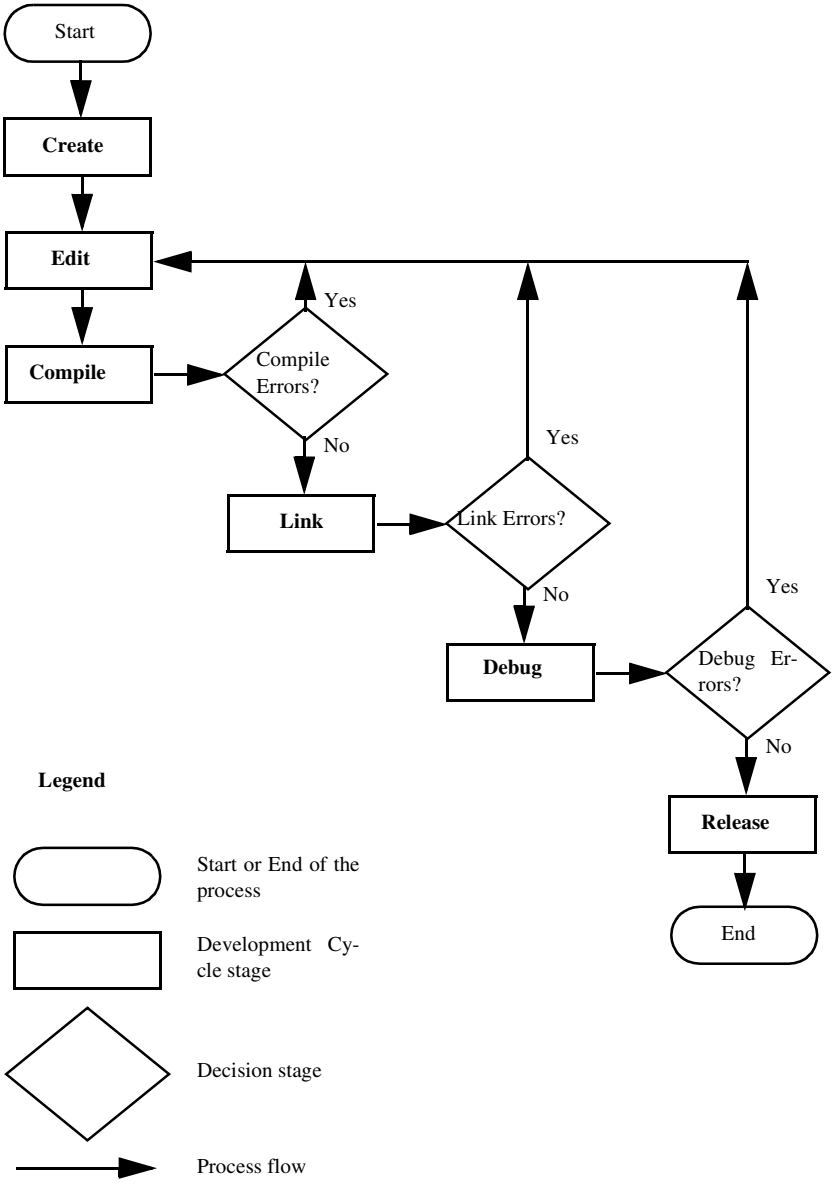


Table 2.1 Stage descriptions and related sections in the IDE User's Guide

Stage	Description	Related Sections
Create	Create the initial project, source files, and build targets.	• "Projects" on page 23 • "Preferences and Target Settings" on page 181 • "Menus" on page 265
Edit	Transform your project into working source code, organize interface elements, and correct errors.	• "Editor" on page 71 • "Browser" on page 135
Compile	Compile the source code into machine format that operates on the target host.	"Compilers and Linkers" on page 173
Link	Link the separate compiled modules into a single binary executable file.	"Compilers and Linkers" on page 173
Release	Release for public use.	Beyond the scope of this manual.

CodeWarrior IDE Advantages

- Multiple-language support

  Choose from multiple programming languages when developing software. The IDE supports high-level languages, such as C, C++, and Java, as well as in-line assemblers for most processors.

- Consistent development environment

  Port software to new processors without having to learn new tools or lose an existing code base. The IDE supports many common desktop and embedded processor families.

- Plug-in tool support

  Extend the capabilities of the IDE by adding a plug-in tool that supports new services. The IDE currently supports plug-ins for compilers, linkers, pre-linkers, post-linkers, preference panels, version controls, and other tools. Plug-ins make it possible for the CodeWarrior IDE to process different languages and support different processor families.

IDE Tools Overview

The CodeWarrior IDE is a tool suite that provides sophisticated tools for software development. This section explains the standard tools available in the IDE:

- a project manager
- an editor
- a search engine
- a source browser
- a build system
- a debugger

Table 2.2 on page 20 explains the purpose of these tools and lists corresponding CodeWarrior IDE features.

Table 2.2 IDE tools and features

Tool	Purpose	CodeWarrior IDE Features
Project Manager	Manipulate items associated with a project	• Handles top-level file management for the software developer • Organizes project items by major group, such as files and targets • Tracks state information (such as file-modification dates) • Determines build order and files to be included in each build • Coordinates with plug-ins to provide version-control services
Editor	Create and modify source code	• Uses color to differentiate programming-language keywords • Allows definition of custom keywords for additional color schemes • Automatically verifies parenthesis, brace, and bracket balance • Allows use of menus for navigation to any function or into the header files used by the program
Search Engine	Find and replace text	• Finds a specific text string • Replaces found text with substitute text • Allows use of regular expressions • Provides file-comparison and differencing functionality

Table 2.2 IDE tools and features (*continued*)

Tool	Purpose	CodeWarrior IDE Features
Source Browser	Manage and view program symbols	• Maintains a symbolics database for the program. Sample symbols include names and values of variables and functions. • Uses the symbolics database to assist code navigation • Links every symbol to other locations in the code related to that symbol • Processes both object-oriented and procedural languages
Build System	Convert source code into an executable file	• Uses compiler to generate object code from source code • Uses linker to generate final executable file from object code
Debugger	Resolve errors	• Uses symbolics database to provide source-level debugging • Supports DWARF (1.1 and 2.0) and the HIWAVE object file format

II

Projects

This section contains these chapters:

- Working with Projects on page 25
- Project Window on page 37
- Working with Files on page 51
- Dockable Windows on page 57
- Workspaces on page 67

3

Working with Projects

This chapter explains how to work with projects in the CodeWarrior™ IDE. Projects organize several file types associated with a computer program:

- Text files—files that contain any kind of text. Sample text files include Read Me files and source files.
- Source files—files that contain source code only. Sample source files include C++ files and assembler files.
- Library files—files that contain special code designed to work together with a particular programming language or operating environment.
- Generated files—files created by the IDE while building or debugging the project.

This chapter contains these sections:

- "About Projects" on page 25
- "Managing Projects" on page 29
- "Advanced Projects" on page 32

About Projects

The IDE uses build targets and a Project Manager to organize source code and support files. This section explains both components.

Project Manager

The IDE gathers source, library, resource, and other files into a *project*. The Project Manager manipulates the information stored in the project.

Figure 3.1 on page 26 diagrams Project Manager interactions with IDE tools. Table 3.1 on page 26 explains the interactions.

Figure 3.1 Project Manager

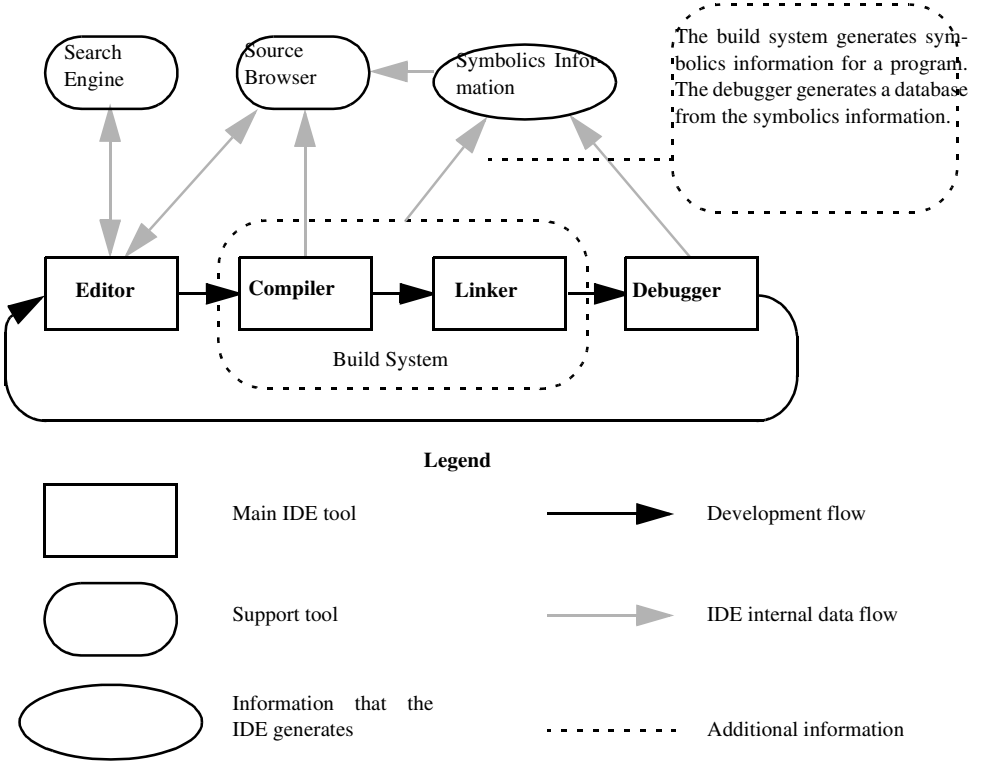


Table 3.1 Project Manager interactions

IDE Tool	Project Manager Interactions
Editor	• Coordinates internal data flow among editor windows, search engine, and source browser • Matches find-and-replace results between related header files and source files • Associates functions and variables with corresponding source code
Compiler	• Synchronizes a symbolics database of program functions, variables, and values with source code • Coordinates internal data flow between symbolics database and source browser • Determines files to include in build process

Table 3.1 Project Manager interactions (*continued*)

IDE Tool	Project Manager Interactions
Linker	• Sends compiled object code to linker for conversion to executable code • Sets the link order for processing compiled object code
Debugger	• Matches debugging data to source code • Updates symbolics database to reflect changing values during a debug session

Build Targets

For any given build, the project manager tracks:

- files and libraries
- link order
- dependencies
- compiler, linker, and other settings

The IDE stores this information in a *build target*. As the project changes, the project manager automatically updates the build target. The project manager also coordinates program builds, using the build-target information to call the appropriate tools in the correct order with the specified settings.

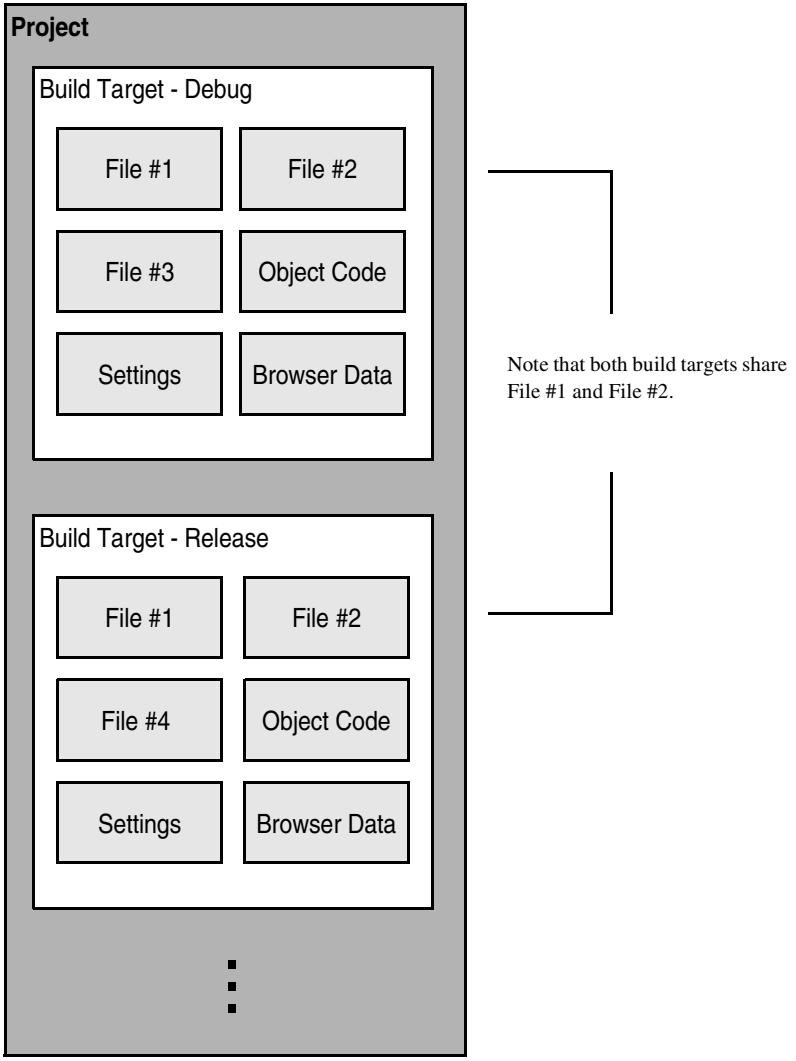
For example, the project manager directs the build system to compile only those source files that rely on information in a modified file.

Note that all of this operation happens automatically. The software developer does not need to remember makefile syntax or semantics, and never has to debug makefile syntax errors. The IDE simplifies the process, making it easier to develop software.

The project manager also supports multiple build targets within the same project file. Each build target can have its own unique settings, and even use different source and library files. For example, it is common to have both debug and release build targets in a project.

Figure 3.2 on page 28 shows a sample project with debug and release build targets.

Figure 3.2 Project with multiple build targets



Managing Projects

Use these tasks to manage projects:

- Create a new project
- Open existing project
- Save project
- Close project
- Inspect an open project
- Print an open project

Creating New Projects using Wizard

Use the project wizard provided with the IDE to quickly create new projects. The wizard creates everything needed for a minimal, ready-to-run project. Use the created project as a foundation upon which to add features for each new project.

1. Choose **File > New.**
2. Click the **Project** tab and select New Project Wizard.
3. Enter a project name in the **Project Name** field and set the **Location** for the new project.
4. Click **OK**.
5. Select the appropriate derivative.
6. Click **Next** and continue with desired selections for your project.

On the last screen cllick **Finish** to create a new project.

Opening Projects

Use the IDE to open previously saved projects. CodeWarrior projects normally end in the *Freescale CodeWarrior Project* extension of `.mcp`. Open projects to add, remove, or modify files to enhance the capabilities of the final executable file.

1. Choose **File > Open**.
2. Find and select the project to open.
3. Click **Open**.

The IDE opens the project and displays its Project window.

NOTE The IDE prompts you for confirmation to update projects created in older CodeWarrior versions.

Opening Projects Created on Other Hosts

CodeWarrior projects whose names end in `.mcp` are cross-platform. However, the object code stored inside each project folder is not cross-platform. Use these procedures to properly open the project on a different host computer.

1. If not present, add the `.mcp` filename extension to the project name.
2. Copy the project folder from the original host to the new host.
3. Delete the `Data` folder inside the newly copied project folder.
4. Open the newly copied project on the new host IDE.
5. Recompile the project to generate new object code.

Saving Projects

The IDE automatically saves projects and updates project information after performing these actions:

- Closing the project
- Applying or saving a preference or target-setting option
- Adding, deleting, or compiling a file
- Editing group information
- Removing or compacting object code
- Quitting the IDE

Inspecting Project Files

Use the **Project Inspector** command to review and configure source-file attributes and target information in the Project Inspector window.

1. Select a file in the Project window.
2. Select **View > Project Inspector** to open the **Project Inspector** window.
3. Examine the source-file attributes and target settings.
   - Click the **Attributes** tab to view the file attributes.

- Click the **Targets** tab to view the build targets that use the file.

Printing Projects

The Project Manager can print a complete listing of the **Files**, **Designs**, **Link Order**, or **Targets** tab currently displayed in the Project window.

1. Select the Project window.
2. Click the **Files**, **Designs**, **Link Order**, or **Targets** tab.
3. Choose **File > Print**.
4. Set the print options in the print dialog.
5. Print the Project window contents.

The IDE prints the contents of the selected tab.

Choosing a Default Project

The IDE allows multiple open projects at the same time. However, a given source file can belong to more than one open project, making it ambiguous as to which project a source-file operation applies.

To resolve ambiguity, choose the default project to which the IDE applies operations.

1. If only one project is open, it automatically becomes the default project.
2. If more than one project is open, choose **Project > Set Default Project** to select the desired default project.

   In ambiguous situations, the IDE applies operations to the selected default project.

Exporting Projects to XML Files

The IDE can export a project to an Extensible Markup Language (XML) file. Use this capability to store projects in text-oriented environments, such as a version control system.

1. Bring the project to export forward (in focus).
2. Choose **File > Export Project**.
3. Name the exported XML file and save it in the desired location.

   The IDE converts the project to an XML file.

Importing Projects Saved as XML Files

The IDE can import a project previously saved in Extensible Markup Language (XML) format. Use this capability to recreate projects stored in text-oriented environments, such as a version control system.

1. Choose **File > Import Project**.
2. Create a new folder in which to save the converted project and all of its generated files.
3. Find the XML file that you want to import.
4. Save the XML file in the newly created folder.

   The IDE converts the XML file to a project.

Closing Projects

Use the **Close** command to close a CodeWarrior project file at the end of a programming session. The IDE automatically saves changes to a closed project.

1. Select the Project window to close.
2. Close the project.
   - Choose **File > Close**.
   - Click the close box in the Project window.

Advanced Projects

Advanced projects deal with these topics:

- Custom project stationery—modified project stationery tailored to advanced programming needs.
- Subprojects—projects within projects.
- Strategies—obtaining the maximum benefit from advanced projects.

Custom Project Stationery

Use custom project stationery to develop streamlined templates to meet advanced programming needs.

- Pre-configure new project stationery to include often-used files, libraries, and source code
- Configure build targets and options to any desired state

- Set up a reusable template to use for creating projects

NOTE Custom project stationery requires in-depth knowledge about project structure and operation. Before creating custom stationery, be sure to fully understand existing project stationery included with the CodeWarrior product.

Creating Custom Project Stationery

Use custom project stationery to develop a convenient template for creating new projects. An efficient way to develop custom stationery is to modify existing project stationery and save it under a new name in the **Stationery** or **Project Stationery** folder.

1. Follow the usual process for creating a project from project stationery.

   See "Creating New Projects using Wizard" on page 29 for more information.
2. Choose **File > Save A Copy As**.
3. Find the **Project Stationery** folder in the CodeWarrior installation.
4. Create a folder inside the **Project Stationery** folder to store the newly created project.
5. **Save** the project to its new folder. Use a descriptive project name with the `.mcp` extension.
6. Customize the newly saved project so that it becomes a template for creating other projects:
   - Add source files to the project. Save these files in the same folder as the project itself.
   - Add build targets for building the project with frequently used settings.
   - Configure other project preferences as desired.
7. Close the customized project to save it.
8. Open the customized project folder inside the **Project Stationery** folder.
9. Find and delete the `_Data` folder.

   The IDE now treats the customized project as project stationery. The descriptive name appears in the **Project** tab of the **New** window.

Subprojects

A subproject is a project nested inside a parent project. Subprojects organize source code for the IDE to build prior to building the parent project. For example, the IDE builds subprojects for an application's plug-ins before building the parent project for the application itself.

Adding Subprojects to a Project

Use a subproject to organize a separate set of source files and build targets inside a parent project.

1. Open the parent project in which to add a subproject.
2. Click the **Files** tab in the Project window.
3. If the parent project has more than one build target, use the build-target list box in the Project window toolbar to choose the desired build target.
4. Add a separate project to the Project window:
   - Drag and drop the `.mcp` file of the separate project into the Project window, or
   - Choose **Project > Add Files** to add the `.mcp` file of the separate project.

   The IDE treats the added project as a subproject. The subproject appears in the **Files** view of the parent Project window.

Opening Subprojects

The IDE can open a subproject from the parent Project window. Use this feature to more conveniently open the subproject.

1. Double-click the subproject in the **Files** view of the parent Project window.
2. The IDE opens the subproject in its own Project window.

Strategies

Projects can organize files into build targets or subprojects. Each of these structures has its own advantages. Choose the structure best suited to the programming need.

Build Targets

Build targets organize collections of files inside a project. Build targets have these advantages:

- Using multiple build targets inside a single project allows access to all source code for that project.
- Build targets organize different collections of build settings for a single project.
- Each project accommodates up to 255 build targets.
- Exception: HC08 supports only one build target.

Subprojects

Subprojects incorporate separate, standalone projects into parent projects. Subprojects have these advantages:

- Subprojects separate distinct parts of a complex program, such as an application and its various plug-ins.
- Using subprojects streamlines a complicated build. For example, create a project that builds all plug-ins for an application. Add this project as a subproject of the main application. The IDE then builds all plug-ins before building the main application.
- Use subprojects to break down a complicated project that approaches the 255 build-target limit. Organize related build targets into different subprojects to improve build speed.

4

Project Window

This chapter explains how to work with the Project window in the CodeWarrior™ IDE. The Project window provides these features:

- view and modify all files created for use with a computer program.
- manipulate files arranged by type.
- control the way the IDE handles files.

This chapter contains these sections:

- "About the Project Window" on page 37
- "Project Window Pages" on page 39
- "File, Group, Layout, and Target Management" on page 44
- "Build-Target Management" on page 48

About the Project Window

The Project window organizes files in a computer program. Use this window to control various aspects of each file. The window includes these items:

- Project window toolbar
- Tabs
- Columns

Figure 4.1 on page 38 shows a sample Project window. Table 4.1 on page 38 explains the items in the Project window.

NOTE The number and names of the tabs in the Project window depend on the current build target and on the installed IDE plug-ins.

Figure 4.1 Project window

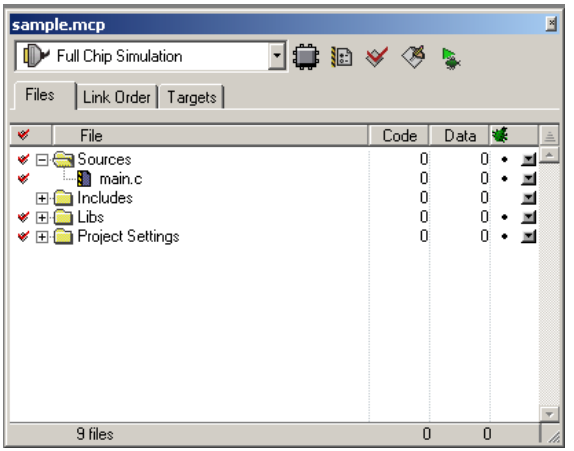


Table 4.1 Project window—items

Item	Icon	Explanation
Current Connection	Full Chip Simulation	Use to specify the connection to your MCU.
Change MCU/ Connection		Use to select a device and connection.
Target Settings		Click to view and edit the settings for the current build target. You can also display settings for a target selected in Targets tab.
Synchronize Modification Dates		Click to check the modification dates of each project file and mark those files that need compilation.
Make		Click to compile and link all modified and manually selected (touched) project files.
Debug		Click to debug the current build target.

Table 4.1 Project window—items (*continued*)

Item	Icon	Explanation
Run		Click to compile and link the current build target, then run the program.
Project Inspector		Click to view project information and edit file-specific information.
Files		Click to display the Files page. This page shows a list of files in the project and their associated properties.
Link Order		Click to display the Link Order page. This page shows the link order of files in the current build target.
Targets		Click to display the Targets page. This page shows a list of all build targets, sub-projects, and target-linking information.

Project Window Pages

The Project window uses pages to organize items:

- Files
- Link Order
- Targets

Files Page

The Files page shows information about individual files in a project. The Files page shows information about these file types:

- Text files—files that contain any type of text. Sample text files include Read Me files and source files.
- Source files—files that contain source code only. Sample source files include C++ files and assembler files.
- Library files—files that contain special code designed to work together with a particular programming language or operating environment.

Table 4.2 on page 40 explains the items in the Files page.

Table 4.2 Files page—items

Item	Icon	Explanation
Touch		Indicates the touch status of each file. Click in this column to toggle touching a file. Touching a file manually selects it for compilation during the next build. Click the Touch icon to sort files by touch status.
File		Displays a hierarchical view of the file and group names used by the project. Click the column title to sort files by name. Double-click a file to open it. Use the hierarchical controls to display and hide group contents.
Code		Displays the size, in bytes or kilobytes, of the compiled executable object code for files and groups. Click the column title to sort files by code size.
Data		Displays the size, in bytes or kilobytes, of non-executable data in the object code for files in the project. Click the column title to sort files by data size.
Target		Indicates whether each file belongs to the current build target. Click in this column to toggle inclusion status. A black dot indicates that a file is included with current build target. Click the Target icon to sort files by inclusion status. The Target column appears only when the project has more than one build target.
Debug		Displays debugging status. Click in this column to toggle generation of debugging information for a file or group. Click the Debug icon to sort files by debugging status.
Checkout Status		Displays icons representing the current file status in a version-control system. The Checkout Status column appears only when the project uses a version-control system to manage files.
Interfaces		Click to display a list of files inside a group or a list of `#include` files inside a source file. Choose a file to open it.
Sort Order		Click to toggle sorting between ascending and descending order for the active column. The icon indicates the current sort order.

Viewing a File Path

To distinguish between two files that have identical names but reside in different folders, examine the file path.

To view the complete path of a file, perform the task explained in Table 4.3 on page 41.

Table 4.3 Viewing a file path

On this host…	Do this…
Windows	Right-click the filename and select **Open in Windows Explorer**

The File Path submenu shows the path to the file.

File Management

The project window lists all files found for all targets. If access paths are different for each target and a file with the same name exists in each path, the project window will list the occurrence of each file.

For example, if two header files named `example.h` are used with two targets (TargetA and TargetB) and exist in separate locations for each target, you will see two entries of `example.h` in the project window. If both targets use the same file in one location, then a single entry will appear in the project window.

Select a file in the Files tab of the project window and view the Project Inspector window to reveal the path for the selected file, and which targets use the file. You can also select a file and click the right mouse button to display a context menu. Select Open in Windows Explorer to display the path.

If a black dot is present in the target column for a listed file, then it is in the current target. You can select this dot to toggle whether or not to include this file with the current target. Double-click a source file to open it in the editor.

If you enable the **Save project entries using relative paths** option in the Target Settings panel, file locations will be stored using a relative path from the access paths defined in the Access Paths panel. If disabled, the IDE remembers project entries only by name. This can cause unexpected results if two or more files share the same name. In this case, re-searching for files by selecting the Project > Re-search for Files menu command could cause the IDE to find the file in a different access path.

NOTE If you use source files with the same name in different locations, you should enable the **Save project entries using relative paths** option.

Duplicate file names can also appear in the Files tab of the project window if a file is not found on one of the access paths. This can happen if an access path has been removed from the User Paths group in the Access Paths target settings panel. When the access path is removed, a duplicate appears in the project window. The duplicate entry remains displayed until the access path is restored.

If a project with several targets (for example Debug and Release target) uses the same file, that file is shown as a single entry. If you remove the access path for that file, then a duplicate entry will appear in the file list. This duplicate represents a missing file for the current target. The second file entry is still avaiable for the other target. Restore the access path and choose **Project > Re-search for Files** to remove the duplicate entry in the list.

The **Project > Re-search for Files** command speeds up builds and other project operations. The IDE caches the location of project files after finding them in the access paths. **Re-search for Files** forces the IDE to forget the cached locations and re-search for them in the access paths. This command is useful if you moved several files and you want the IDE to find the files in their new locations.

If the **Save project entries using relative paths** option is enabled, the IDE does not reset the relative-path information stored with each project entry, so re-searching for files looks for source files in the same location. If the files are not there, the IDE only re-searches for header files. To force the IDE to also re-search for source files, choose the **Project > Reset Project Entry Path**s menu command. If the **Save project entries using relative paths** option is disabled, the IDE re-searches for both header files and source files.

The **Reset Project Entry Paths** command resets the location information stored with each project entry and forces the IDE to re-search for project entries in the access paths. This command does nothing if the **Save project entries using relative paths** option is disabled.

NOTE If the IDE is unable to locate or resolve the location of project files, a Rescued items folder will appear. The IDE trys to locate the missing files and creates new references. This can happen when project data information, access paths, or other location settings in target settings panels are missing or have been compromised, for example, if the location of a project and related data directory have changed. One way this can happen is if a project has been committed to a source repository by one person and checked out to a different location by another person and a new project data folder is created.

Link Order Page

The Link Order page shows information about the order in which the IDE links project files. Manipulate the files in this page to change the link order. For example, if file B depends on file A in order to function, move file B below file A in the Link Order page.

Table 4.4 on page 43 explains the items in the Link Order page.

Table 4.4 Link Order page—items

Item	Explanation
Synchronize Modification Dates	To update the modification dates of files stored in a project, click the checkmark icon. Use the Synchronize Modification Dates command to update files modified outside of the CodeWarrior IDE, perhaps by a third-party editor that cannot notify the CodeWarrior IDE of changes.
Synchronize Status	To update version-control status information, click the Pencil icon.

Targets Page

The Targets page presents information about the build targets in a project. Use this page to create, manage, or remove build targets. Different build targets can store different IDE settings. For example, two build targets can handle the same project. One build target handles debugging the software, while the other build target handles building the software for final release.

Table 4.5 on page 44 explains items in the Targets page.

Table 4.5 Targets page—items

Item	Explanation
Targets	Displays all build targets and subprojects that the IDE processes to create a binary file. These icons denote build-target status: • active build target • inactive build target
Link	Indicates the dependencies between build targets and subprojects.

File, Group, Layout, and Target Management

Use these tasks to manage files, groups, layouts, and targets:

- Create an item.
- Delete an item.
- Move an item.
- Rename an item.
- Touch an item.
- Manage items.
- Set default items.
- Configure item settings.

Removing Files/Groups/Layouts/Targets

The **Remove** command deletes files, groups, layouts, and build targets from the Project window. Removing files from the **Files** tab removes them from the project itself and from all build targets that use the files. Removing a file from the **Link Order**, **Segments**, or **Overlays** tab only removes the file from the current build target.

Removing files/groups/layouts/targets from a project

1. Click the **Files**, **Designs**, or **Targets** tab in the Project window.
2. Select the item to remove.
3. Remove the selected item from the project, as explained in Table 4.6 on page 45.

Table 4.6 Removing a selected item from a project

On this host…	Do this…
Windows	Select **Edit > Delete**

The IDE removes the selected item from the project. For deleted files, the IDE updates all build targets that formerly used the file. For deleted build targets, the IDE deletes build-target information and leaves files intact.

Removing files from a build target

1. Click the **Link Order, Segments**, or **Overlays** tab in the Project window.
2. Select the item to remove.
3. Remove the selected item from the active build target, as explained in Table 4.7 on page 45.

Table 4.7 Removing a selected item from the active build target

On this host…	Do this…
Windows	Select **Edit > Delete**

The IDE removes the file from the build target, but leaves the file itself intact. The file can be reassigned to other build targets in the project.

Moving Files/Groups/Layouts/Targets

Reposition files, groups, layouts, or build targets in the **Files**, **Design**, **Link Order**, or **Targets** pages with the cursor.

1. Select one or more files, groups, layouts, or build targets to move with the pointer.
2. Drag the selected items to a new position in the current page, using the focus bar as a guide.
3. Release the mouse button.

The IDE repositions the selected files, groups, layouts, or build targets to the new location.

NOTE In the **Link Order** page, repositioning files changes the link order that the **Make** command uses to build the final executable file.

Renaming Files/Groups/Targets

The **Rename** command renames files, groups, or build targets in the project.

Rename files

1. Open the file to rename.
2. Choose **File > Save As**.
3. Type a new filename in the **Name** text box.
4. Click **Save**.

The IDE saves the file under the new name. The new filename appears in the Project window. Subsequent modifications affect the renamed file, leaving the original file intact.

Rename one or more groups

1. Click the **Files** tab in the Project window.
2. Select the group(s) to rename.
3. Press the **Enter** key.
4. Type a new name into the **Enter Group Name** text box of the **Rename Group** window.
5. Click **OK**.

   The IDE renames the group. For selections of more than one group, the **Rename Group** window appears for each group.

Rename build targets

1. Click the **Targets** tab in the Project window.
2. Choose **Edit >** *targetname* **Settings**.

3. Select **Target Settings** in the **Target Settings Panels** list.
4. Type a new name in the **Target Name** text box.
5. Click **Save**.

   The Project window displays the new build target name.

Touching Files and Groups

The **Touch** command manually selects source files or groups for compilation during the next **Bring Up To Date**, **Make**, **Run**, or **Debug** operation. A red check mark in the **Touch** column of the Project window indicates a touched file.

1. Click the **Files** tab in the Project window.
2. Touch a source file or group for compilation.

   Click the **Touch** column next to the file or group name.

   OR

   Choose **Touch** from the **Interface** menu for the file or group.

A red check mark appears in the Touch column next to the file or group name.

Touch all project files for recompiling

1. Perform the task explained in Table 4.8 on page 47.

Table 4.8 Touching all project files for recompiling

On this host…	Do this…
Windows	Alt-click the Touch column.

2. Red check marks appear next to all files and groups.

Untouching Files and Groups

The **Untouch** command manually excludes source files or groups from compilation during the next **Bring Up To Date**, **Make**, **Run**, or **Debug** operation.

1. Click the **Files** tab in the Project window.
2. Untouch a source file or group to remove it from the compilation list.

   Click the red check mark in the **Touch** column next to the file or group name.

   OR

   Choose **Untouch** from the **Interface** menu for the file or group.

The red check mark disappears from the **Touch** column next to the file or group name.

Untouch all project files

1. Perform the task explained in Table 4.9 on page 48.

Table 4.9 Untouching all project files

On this host…	Do this…
Windows	Alt-click a red checkmark in the Touch column.

2. The red checkmarks next to all files and groups disappear.

Build-Target Management

These tasks help you manage build targets:

- Create a build target.
- Remove a build target.
- Set the default build target.
- Rename a build target.
- Configure build-target settings.

Creating Build Targets

The **Create Target** command adds new build targets to a project.

1. Open the **Project** window.
2. Click the **Targets** tab in the Project window.
3. Choose **Project > Create Target**.
4. Type a name in the **Name** text box of the **New Target** window.
5. Select the **Empty target** or **Clone Existing Target** radio button as desired.

- **Empty Target**—create a new build target from scratch.
- **Clone Existing Target**—duplicate an existing build target in the **New Target** window.

6. Click **OK**.

The IDE adds the new build target to the project.

Removing Build Targets from a Project

You can remove unneeded build targets from the Project window.

1. Click the **Targets** tab in the Project window.
2. Select the item to remove.
3. Remove the selected build target, as explained in Table 4.10 on page 49.

Table 4.10 Removing the selected build target

On this host…	Do this…
Windows	Select **Edit > Delete**

The IDE removes the build target.

Setting the Default Build Target

The CodeWarrior Project Manager can handle up to 255 build targets in a single project. One build target must be defined as the default target when more than one project is open. The default target is the target affected by project commands, such as **Make** and **Run**.

The Project menu

1. Choose **Project > Set Default Target >** *buildtarget*.
2. A checkmark indicates the default target.

Using the Project window toolbar

1. Enable the **Project** window.
2. Choose the build-target name from the **Current Target** pop-up menu.

The Targets page

1. Enable the **Project** window.
2. Click the **Targets** tab.
3. Click the desired build-target icon.

   The icon changes to indicate that the build target is now the default.

Renaming Build Targets

The **Rename** command renames build targets in a project.

1. Click the **Targets** tab in the Project window.
2. Choose **Edit > *targetname* Settings**.
3. Select **Target Settings** in the **Target Settings Panels** list.
4. Type a new name in the **Target Name** text box.
5. Save the new name.

   The new build-target name appears in the Project window.

Configuring Build Target Settings

The **Target Settings** panel options determine:

- The compiler used to process the project and produce object code
- The linker used to combine object code and produce a binary file
- The pre-linker and post-linker options that further process the object code
- The name assigned to a build target

Follow these steps to configure build-target settings.

1. Choose **Edit > *targetname* Settings**.
2. Select **Target Settings** from the **Target Setting Panels** list.
3. Specify target options as desired.
4. Save the new options

   The panels available in the **Target Settings Panels** list update to reflect the choices in the **Target Settings** panel.

5

Working with Files

This chapter explains how to work with files in the CodeWarrior™ IDE. Most computer programs use these file types:

- Text files—files that contain any type of text. Example text files include Read Me files and source files.
- Source files—files that contain source code only. Example source files include C++ files and assembler files.

Managing Files

These tasks manage files:

- Create a new file.
- Open an existing file.
- Save a file.
- Close a file.
- Print a file.
- Revert a file to a previously saved state.

Creating Text Files

The **New** command opens a window from which you create new text files. You can use new text files as source files in a project or as plain-text files.

1. Select **File > New**.

   The **New** window appears.
2. Click the **File** tab in the New window.
3. Select **Text File** in the list.
4. Type a filename in the **File name** text box.
5. Click **Set** to specify the location to save the new file.
6. Click **OK**.

The IDE creates the new text file and displays its contents in a new editor window.

TIP Use the **Customize IDE Commands** window to add the **New Text File** menu command to the **File** menu. Adding this menu command reduces the process of creating a new text file to one step: select **File > New Text File**. See "Customizing the IDE" on page 183 for more information about using the Customize IDE Commands window.

Opening Source Files

The **Open** command opens one or more editable source files. Each open file appears in its own editor window.

NOTE The CodeWarrior editor cannot open files that prohibit editing. For example, the editor cannot open library files.

From the File menu

1. Choose **File > Open**.
2. Windows: Use the **Files of type** pop-up menu to select **All Files**.
3. Select a file.
4. Click **Open**.

   The IDE displays the file in an editor window.

From the Project window

1. Perform one of these:
   - Double-click a filename in the **Files** tab of the Project window, or
   - Select an interface filename from the Interface menu.
2. The IDE finds, opens, and displays the selected source file in an editor window.

From an editor window

1. Select an interface filename from the Interface menu.
2. The IDE selects, opens, and displays the source file in an editor window.

NOTE The menu does not show files that do not contain source code or are not yet compiled.

Using Find and Open Files

1. In an editor window, select the name of an interface file, for example `stdio.h`.
2. Choose **File > Find and Open File**.

   The IDE finds, opens, and displays the source file in an editor window.

To open a recent file or project

1. Choose **File > Open Recent >** ***recentfilename*** **|** ***recentprojectname***.
2. The IDE finds and opens the selected source file or project.

Saving Files

Use the **Save** command to save source files to ensure their continued existence between development sessions.

1. Choose **File > Save**.

NOTE If the file has no title, a save dialog appears. Type a filename and specify a location for the file, then click **Save**.

2. The IDE saves the file.

Saving All Modified Files

Use the **Save All** command to save the contents of all modified files. This command is useful for saving all files at the same time, rather than saving each file individually.

1. Save all currently opened and modified files, as explained in Table 5.1 on page 53.

Table 5.1 Saving all currently opened and modified files

On this host…	Do this…
Windows	Select **File > Save All**

2. The IDE saves the files.

Saving File Copies

Use the **Save a Copy As** command to save a back-up copy of a project or file before modifying the original. Working on a copy of the original file provides a way to return to the original copy should modifications fail.

1. Choose **File > Save A Copy As**.
2. Type a new filename in the **Name** text box.
3. Click **Save**.

The IDE creates a copy of the file under the new name, leaving the original file unchanged.

Closing Files

The **Close** command closes open source files. Close editor windows to close a file.

1. Select an editor window to close.
2. Close the file window.
   - Choose **File > Close**, or
   - Click the close box.

NOTE The IDE displays an alert if the file is modified. The alert asks whether to save changes to the file.

Closing All Files

The **Close All** command closes all currently open files. This command is useful for closing all files at the same time, rather than closing each file individually.

1. Close all currently open files, as explained in Table 5.2 on page 54.

Table 5.2 Closing all currently open files

On this host…	Do this…
Windows	Select **Window > Close All** or **Window > Close All Editor Windows**.

2. The IDE closes the files.

Printing Source Files

The **Print** command prints the entire contents of a selected file window.

1. Activate the desired editor window to print.
2. Choose **File > Print**.
3. Set print options in the **Print** dialog.
4. Click OK or Print to print the file.

   The IDE prints the selected file.

NOTE Use the same process to print the contents of a window, such as a Project window.

Printing Source-File Selections

The **Print** command prints the currently selected contents in an editor window.

1. Activate the desired editor window to print.
2. Select the portion of text to print.
3. Choose **File > Print**.
4. Set print options in the **Print** dialog.
5. Click **OK** or **Print**

   The IDE prints the selected text in the file.

Reverting Files

Use the **Revert** command to replace the current file with its previously saved version.

1. Choose **File > Revert**.
2. Click **OK** in the **Revert changes to file** dialog.

6

Dockable Windows

This chapter explains how to work with dockable windows in the Windows-hosted CodeWarrior™ IDE.

Use dockable windows to do these tasks:

- Organize—attach, or *dock*, various windows to the edges of the screen for quick access.
- Group—dock windows of the same type to create a single window with multiple tabs, where each tab represents one of the original docked windows.

NOTE The dockable windows feature is available in Multiple Document Interface (MDI) mode only. This feature is not available in Floating Document Interface (FDI) mode. Toggle the **Use Multiple Document Interface on page 261** option in the **IDE Extras on page 205** preference panel to change between these two modes.

This chapter contains these sections:

- "About Dockable Windows" on page 57
- "Working with Dockable Windows" on page 59
- "Dock Bars" on page 63

About Dockable Windows

You can dock certain windows to the edges of the main frame window of the IDE. Table 6.1 on page 58 explains possible states for dockable windows. Figure 6.1 on page 58 shows the different window states.

In MDI mode, the IDE occupies a main window frame, or *client area*. IDE windows normally appear within this client area as you work. These windows are called *child windows* of the IDE's client area.

Table 6.1 Window states

State	Characteristics
Docked	• Attached to the left, right, top, or bottom edge of the client area • restricted to the client area • resizable • has a dock bar instead of a title bar
Floating	• Rests above all docked windows and MDI child windows • movable outside the client area, like a floating palette • has a thin title bar • does not have Minimize or Maximize buttons
MDI Child	• Normal child window of the client area, when running in MDI mode • restricted to the client area

Figure 6.1 Window states

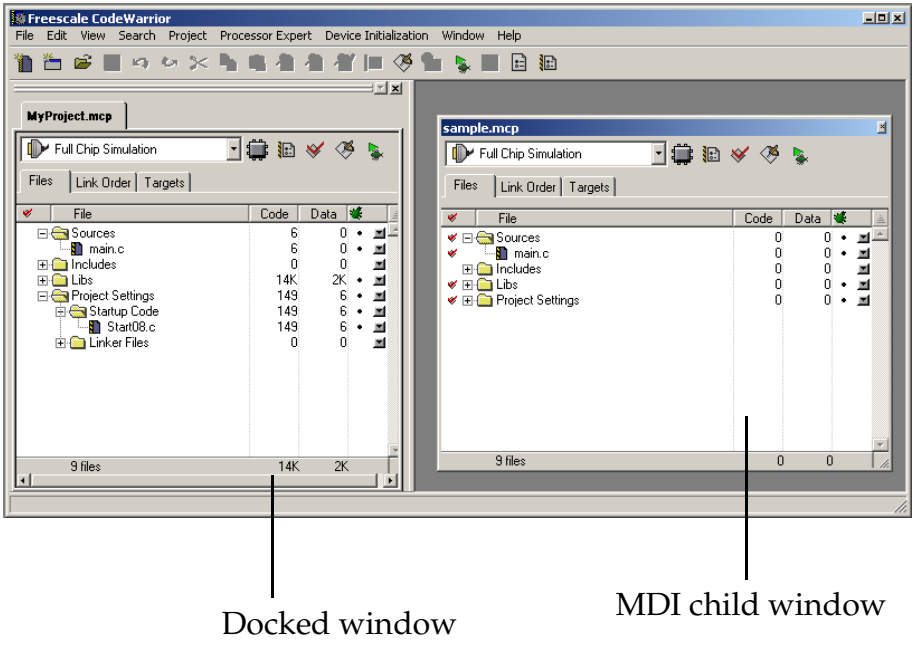


Table 6.2 on page 59 explains the difference between dockable windows and non-dockable windows. In this table, the term *non-modal* refers to a window that does not require your attention before allowing the IDE to proceed with other operations.

Table 6.2 Differences between dockable and non-dockable windows

Window Type	Required Criteria	Sample Windows
Dockable	All of these: • non-modal • resizable • maximizable	• Thread • Project • Component Catalog
Non-dockable	Any of these: • modal • non-resizable • non-maximizable	• IDE Preferences • Find • About Box

NOTE The default setting for project windows is to dock to an edge of the client area. You can undock these windows.

Compound windows that have more than one pane dock as a group. You cannot separately dock individual panes from these windows. For example, you can dock the Thread Window, but you cannot dock the Stack Crawl pane separately from the Thread Window.

Working with Dockable Windows

You can dock windows in one of two ways:

- dragging a floating window to a docking position
- using a contextual menu to dock a window

You can resize docked windows and undock them to floating windows or MDI child windows.

This section explains how to perform tasks with dockable windows.

Docking a Window By Using a Contextual Menu

Use a contextual menu to dock a floating window or MDI child window to one of the four edges of the client area.

1. Right-click the window title bar.

   A contextual menu appears.

2. Choose **Docked** from the contextual menu.

NOTE The **Docked** command appears in the contextual menu for dockable windows only.

The window docks to an edge of the client area. You can resize the docked window or move it to a different edge of the client area.

Docking a Window By Using Drag and Drop

You can drag a docked window or a floating window to one of the four edges of the client area to dock it.

1. Drag the window to one edge of the client area.

   Drag a floating window by its title bar. Drag a docked window by its dock bar.

2. A window outline appears near the client-area edge, showing the final position after you release the window.

   Use the outline as a visual cue that the IDE will dock the window. If an outline does not appear, you cannot dock the window.

3. Release the window to dock it to the edge.

   The window appears in the position indicated by the window outline.

Docking Windows of the Same Kind

You can dock two or more windows of the same kind inside a single docked window. In this arrangement, tabs inside the single docked window represent each of the original docked windows. You can undock each tab individually from the single docked window.

1. Dock the first of two or more windows of the same kind to an edge of the client area.
2. Dock the second window to the same edge as the first window.

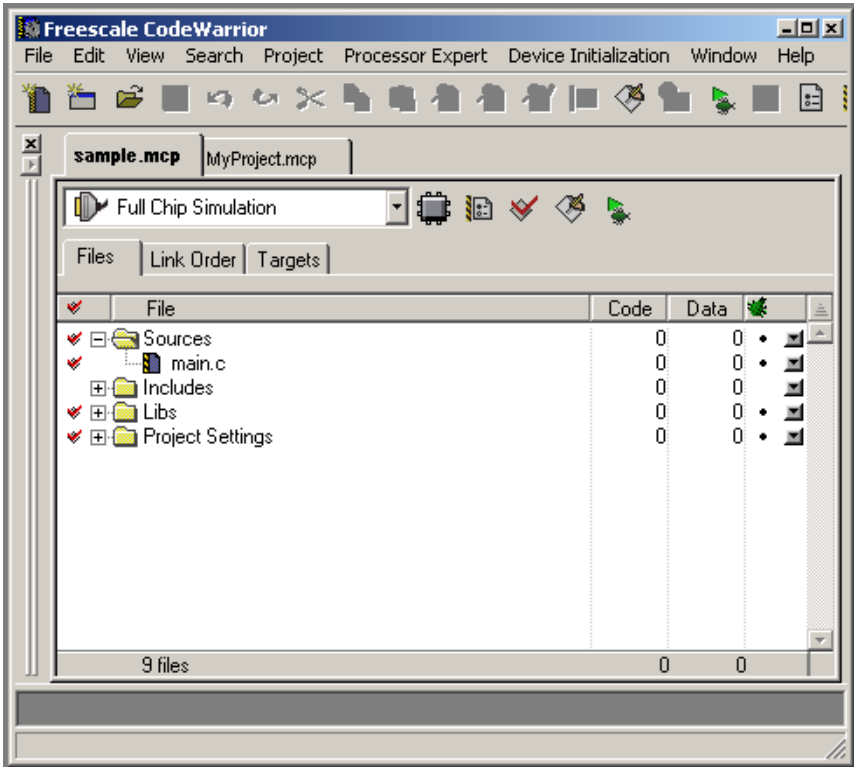
   Use the window outline that appears as a visual cue that the IDE will dock the second window to the same edge as the first window.

3. Dock subsequent windows to the same edge as the first window.

   Each additional docked window appears as a tab inside the first docked window. Click a tab to view its contents. The frontmost tab appears in bold font.

Figure 6.2 on page 61 shows two projects represented as tabs in a single docked window.

Figure 6.2 Two projects in a single docked window



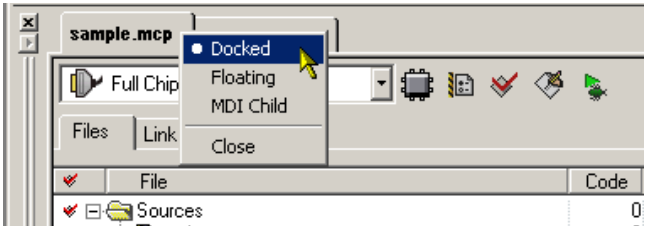
Undocking a Window

Use a contextual menu to undock a window from an edge of the client area to a floating window or MDI child window.

1. Right-click the tab inside the docked window that represents the window you want to undock.

   A contextual menu appears.

Figure 6.3 Contextual menu



2. Choose **Floating** or **MDI Child** from the contextual menu.
   - Floating—undock the window so that it becomes a floating window
   - MDI child—undock the window so that it becomes an MDI child window of the client area

The window undocks and becomes the chosen window type.

Alternately, double-click the tab to undock the corresponding window to a floating window.

Floating a Window

Use a contextual menu to float a docked window or MDI child window.

1. Right-click the tab in the docked window or the title bar of the MDI child window.

   A contextual menu appears.

2. Choose **Floating** from the contextual menu.

NOTE The **Floating** command appears in the contextual menu for floatable windows only.

The window becomes a floating window (that you can drag outside the client area).

Alternately, double-click the tab in a docked window to float its corresponding window.

Unfloating a Window

Use a contextual menu to dock a floating window or make it an MDI child window.

1. Right-click the title bar of the floating window.

   A contextual menu appears.

2. Choose **Docked** or **MDI Child** from the contextual menu.
   - Docked—dock the floating window

- MDI child—unfloat the window so that it becomes an MDI child window

The window unfloats and becomes the chosen window type.

Alternately, drag the floating window to an edge of the client area to dock it.

Making a Window an MDI Child

Use a contextual menu to make a docked window or floating window an MDI child window.

1. Right-click the tab in the docked window or the title bar of the floating window.

   A contextual menu appears.

2. Choose **MDI Child** from the contextual menu.

The docked window or floating window becomes an MDI child window.

Suppressing Dockable Windows

Suppress dockable windows to drag a window to any location onscreen without docking it to an edge of the client area.

1. Hold down the Ctrl key while dragging or floating an MDI child window.

   The thin window outline that normally indicates docked-window placement becomes a heavy window outline. Use this heavy outline as a visual cue that the IDE suppresses dockable windows.

2. Release the window at its final position.

   The window appears in the position indicated by the heavy window outline.

3. Release the Ctrl key.

Dock Bars

A docked window has a dock bar instead of a title bar. Use the dock bar to perform these tasks:

- move the docked window to a different edge of the client area
- collapse or expand view of the docked window
- close the docked window

Figure 6.4 on page 64 shows a dock bar.

Figure 6.4 Dock Bar

Collapsing a Docked Window

If two or more distinct docked windows occupy the same edge of the client area, you can collapse one docked window to view contents of other docked windows.

1. Dock two or more windows to the same edge of the client area.

   The windows' contents must appear in separate docked windows, not as tabs in a single docked window.

2. Click the collapse button on the dock bar of the docked window that you want to collapse.
3. The docked window collapses to hide its contents.

Expanding a Docked Window

If you previously collapsed a docked window, you can expand it and view its contents.

1. Click the expand button on the dock bar:
2. The docked window expands to restore its original view.

Moving a Docked Window

Use the gripper in a docked window's dock bar to move the docked window to a different edge of the client area.

1. Drag the docked window by the gripper in its dock bar:
2. Release the docked window at its new position.

Closing a Docked Window

Close a docked window directly from its dock bar.

1. Click the close button on the dock bar:
2. The docked window closes.

Re-opening the window restores its docked position.

7

Workspaces

This chapter explains how to work with workspaces in the CodeWarrior™ IDE. Use workspaces to do these tasks:

- Organize—save the state of all windows onscreen for later reuse
- Migrate across computers—transfer your workspace from one computer to another

This chapter contains these sections:

- "About Workspaces" on page 67
- "Using Workspaces" on page 67

About Workspaces

A workspace stores information about the current state of the IDE. This information consists of the size, location, and the docked state (Windows) of IDE windows. If you save a workspace during an active debugging session, the workspace also stores information about the state of debugging windows.

The IDE can use a default workspace, or it can use a workspace that you create. The IDE works with one workspace at a time. You can save and re-apply a workspace from one IDE session to the next.

Using Workspaces

Use menu commands to perform these workspace tasks:

- save a new workspace
- open an existing workspace
- close the current workspace

Using the Default Workspace

Use the default workspace to preserve IDE state from one session to the next. The IDE saves and restores the default workspace automatically.

1. Choose **Edit > Preferences**.

   The IDE Preferences window opens.

2. Select **IDE Extras** in the **IDE Preference Panels** list.

   The IDE Extras preference panel appears.

3. Enable the **Use default workspace on page 260** option.

   - Checked—the IDE saves its state at the time you quit, then restores that state the next time you launch the IDE
   - Unchecked—the IDE always launches with the same default state: no windows visible

Saving a Workspace

Save a workspace to store information about the current state of onscreen windows, recent items, and debugging.

1. Arrange your workspace.

   Move windows to your favorite positions and start or finish a debugging session.

2. Choose **File > Save Workspace**.

   A **Save** dialog box appears.

3. Enter a name for the current workspace

NOTE Add the extension `.cww` to the end of the workspace name, for example, `myworkspace.cww`. This extension helps you readily identify the workspace file. The Windows-hosted IDE requires this extension to recognize the file as a CodeWarrior workspace.

4. Save the workspace to a location on your hard disk.

The IDE now uses your saved workspace. In subsequent programming sessions, you can open the workspace.

Opening a Workspace

Open a workspace to apply its settings to the IDE.

1. Choose **File > Open Workspace**.

   An **Open** dialog box appears.

2. Open the workspace.

   Use this dialog box to navigate your hard disk and select a workspace file. These files end in the `.cww` extension.

The IDE opens the selected workspace and applies its settings.

Saving a Copy of a Workspace

Save a copy of a current workspace under a different name.

1. Open an existing workspace.
2. Choose **File > Save Workspace As**.

   A **Save As** dialog box appears.

3. Enter a name for the copy of the current workspace

NOTE Add the extension `.cww` to the end of the workspace name, for example, `myworkspace.cww`. This extension helps you readily identify the workspace file. The Windows-hosted IDE requires this extension to recognize the file as a CodeWarrior workspace.

4. Save the workspace to a location on your hard disk.

The IDE saves a copy of the current workspace under the name you specified.

Closing a Workspace

Close the current workspace after you finish working with it.

1. Choose **File > Close Workspace**.
2. The IDE closes the current workspace.

NOTE You cannot close the default workspace, however, the **IDE Extras** preference panel contains an option that determines whether the IDE uses the default workspace.

You can now open a different workspace or quit the IDE.

Opening a Recent Workspace

You can list recently used workspaces in the **Open Recent** submenu. The **IDE Extras** preference panel contains an option that determines the number of recent workspaces that the submenu will list.

1. Choose **File > Open Recent**.

   A submenu appears. This submenu lists recently opened projects, files, and workspaces. A checkmark appears next to the active workspace.

2. Choose a recent workspace from the Open Recent submenu.

   The IDE applies the workspace that you select.

Editor

This section contains these chapters:

- The CodeWarrior Editor on page 73
- Editing Source Code on page 81
- Navigating Source Code on page 95
- Finding and Replacing Text on page 103

8

The CodeWarrior Editor

This chapter explains how to work with the editor in the CodeWarrior™ IDE. Use the editor to perform these tasks:

- Manage text files—the editor includes common word-processing features for creating and editing text files. Sample text files include Read Me files and release notes.
- Manage source files—the editor includes additional features for creating and editing source files. The IDE processes source files to produce a program.

This chapter contains these sections:

- "Editor Window" on page 73
- "Editor Toolbar" on page 75
- "Other Editor Window Components" on page 77

Editor Window

Use the editor window to create and manage text files or source files. The window contains these major parts:

- Editor toolbar
- Text-editing area
- Line and column indicator
- Pane splitter controls

Figure 8.1 on page 74 shows the editor window. Table 8.1 on page 74 explains the items in the editor window.

Figure 8.1 Editor window

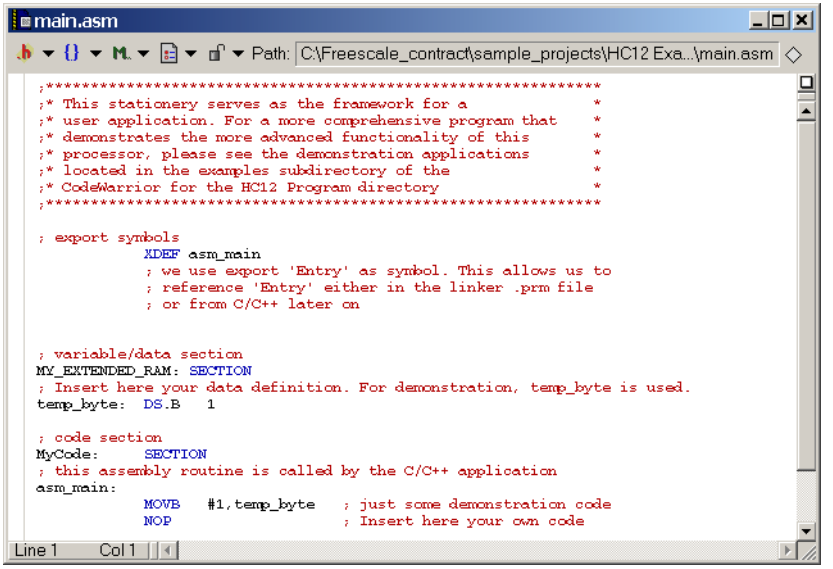

main.asm
Path: C:\Freescale_contract\sample_projects\HC12 Exa...\main.asm
;* This stationery serves as the framework for a *
;* user application. For a more comprehensive program that *
;* demonstrates the more advanced functionality of this *
;* processor, please see the demonstration applications *
;* located in the examples subdirectory of the *
;* CodeWarrior for the HC12 Program directory *
; export symbols
XDEF asm_main
; we use export 'Entry' as symbol. This allows us to
; reference 'Entry' either in the linker .prm file
; or from C/C++ later on
; variable/data section
MY_EXTENDED_RAM: SECTION
; Insert here your data definition. For demonstration, temp_byte is used.
temp_byte: DS.B 1
; code section
MyCode: SECTION
; this assembly routine is called by the C/C++ application
asm_main:
MOVB #1,temp_byte ; just some demonstration code
NOP ; Insert here your own code
Line 1 Col 1

Table 8.1 Editor window—items

Item	Icon	Explanation
Interfaces Menu on page 76		Displays a list of referenced interface files or header files for the source file.
Functions Menu on page 76		Displays a list of functions defined in the source file.
Markers Menu on page 76		Displays a list of markers defined in the file.
Document Settings Menu on page 76		Displays file-format options and a syntax-coloring toggle.

Table 8.1 Editor window—items (*continued*)

Item	Icon	Explanation
Version Control System Menu on page 77		Displays a list of available Version Control System (VCS) commands. Choose a command to apply to the source file.
Path Caption on page 77		Displays the complete path to the file.
File Modification Icon on page 77		This icon indicates an unchanged file since the last save. This icon indicates a file with modifications not yet saved.
Text Editing Area on page 78		Shows the text or source-code content of the file.
Line and Column Indicator on page 78		Displays the current line and column number of the text-insertion cursor
Pane Splitter Controls on page 78		Drag to split the window into panes.

Editor Toolbar

Use the editor toolbar to complete these tasks:

- Open interface and header files
- Find function definitions
- Set and clear markers
- Modify file formats
- Control syntax coloring
- Execute version-control operations
- Determine a file's save state

This section explains how to expand and collapse the toolbar, and how to perform each toolbar task.

Expanding and Collapsing the Editor Window Toolbar

To expand the editor window toolbar, click this icon in the right-hand top corner of the editor window.

To collapse the Editor Window Toolbar, click this icon in the right-hand top corner of the Editor window.

Interfaces Menu

The Interfaces menu lists the source files included in the current source file.

See "Finding Interface Files" on page 95 for information on navigating source code with the Interfaces menu.

Functions Menu

The Functions menu lists the functions (routines) defined in the current file.

See "Locating Functions" on page 96 for information on navigating source code with the Functions pop-up.

Markers Menu

The Marker menu lists markers placed in the current file. Use markers to scroll to specific items in source code and find code segments by intuitive names.

See "Using Markers" on page 98 for information on navigating source code with Markers.

Document Settings Menu

The Document Settings menu shows whether the IDE applies syntax coloring to the window text, as well as the format in which the IDE saves the file.

To toggle syntax coloring

- Choose **Document Settings > Syntax Coloring**.

The editor window updates to display the new syntax color setting.

To specify the EOL format for the file

- Choose the EOL format for the file.

The IDE applies the specified EOL format to the file the next time it gets saved.

Version Control System Menu

In editor windows, the version control pop-up menu lists options provided by a version control system (VCS) compatible with the IDE. Use a VCS to manage multiple versions of files. VCS packages are available separately for use with the IDE.

Using the Version Control System Menu

Use the **Version Control System (VCS)** pop-up menu to access version control commands related to the editor window's file. If a version control system is not enabled for a project, the only item on the VCS menu is **No Version Control Available**.

- Choose **VCS >** ***VCScommand***

The IDE executes the VCS command.

Other Editor Window Components

Use other editor window components to perform these tasks:

- Determine the path to a file.
- Determine the modification status of a file.
- Edit text or source code.
- Find the text-insertion point.

This section explains these additional editor window components.

Path Caption

The Path caption shows the path to the active file.

File Modification Icon

The File Modification icon indicates the save status of the file:

- The icon indicates an unchanged file since the last **Save**.

- The icon indicates a file with modifications not yet saved.

Text Editing Area

The text editing area behaves the same way as it does in a word processor. Enter text or source code, perform edits, and copy or paste selections.

Line and Column Indicator

The Line and Column indicator shows the current position of the text-insertion point. Click the indicator to specify a line to scroll into view.

Pane Splitter Controls

Use the pane splitter controls to perform these tasks:

- Add panes to editor windows.
- Adjust pane size.
- Remove panes from editor windows.

This section explains how to perform each task.

Adding Panes to an Editor Window

Use the **Pane Splitter** controls to add additional view panes in an editor window and view two or more sections of a source file at the same time.

1. Click and drag a **Pane Splitter control** to add a view pane.
2. The IDE adds a new view pane to the editor window.

Resizing Panes in an Editor Window

Use the **Pane Resize** controls to resize the panes in an editor window.

1. Click and drag a vertical or horizontal **Pane Resize** control.
2. The IDE resizes the selected view pane.

Removing Panes from an Editor Window

Use the **Pane Resize** controls to remove additional view panes from an editor window.

1. Remove an editor window pane.
   - Double-click the **Pane Resize** control to remove the pane, or
   - Click and drag the **Pane Resize** control to the left or top edge of the editor window.
2. The IDE removes the view pane from the editor window.

9

Editing Source Code

This chapter explains how to edit source code in the CodeWarrior™ IDE. The IDE provides these features to help you edit source code:

- Select and indent text—the editor can select text by line, routine, or rectangular selection. The editor also handles text indentation.
- Balance punctuation—the editor can find matching pairs of parentheses, brackets, and braces. Most programming languages, such as C++, produce syntax errors for punctuation that lacks a counterpart.
- Complete code—the IDE can suggest ways to complete the symbols you enter in a source file

This chapter contains these sections:

- "Text Manipulation" on page 81
- "Punctuation Balancing" on page 84
- "Code Completion" on page 85

Text Manipulation

Use these tasks to manipulate text files:

- Select text
- Overstrike text
- Use virtual space
- Indent text

This section explains how to perform each task.

Selecting Text in Editor Windows

The editor lets you select text in several ways while you edit source files.

NOTE Enable the **Left margin click selects line** option in the **Editor Settings** preference panel to use the right-pointing arrow cursor.

Lines

Follow these steps to select a line of text:

- Triple-click anywhere on a line, or
- Click the right-pointing cursor in the left margin of the line.

Multiple lines

Follow these steps to select multiple lines of text:

- Drag the cursor over several lines of text and release, or
- Position the cursor at the beginning of a selection range, then Shift-click the end of the selection range to select all text between the two points, or
- Drag the right-pointing cursor to select lines of text.

Rectangular text selections

Table 9.1 on page 82 explains how to select rectangular portions of text.

Table 9.1 Selecting a rectangular portion of text

On this host...	Do this...
Windows	Alt-drag the cursor over the portion of text.

Entire routines

Follow these steps to select an entire routine:

1. Hold down the **Shift** key.
2. Choose a function name from the **Function** list menu.

Overstriking Text

Use the Overstrike command to toggle between text insertion and text overwriting mode when entering text. Press the **Ins** key to toggle overstrike mode.

Using Virtual Space

Use the Virtual Space feature to place the cursor anywhere in the white space of a line of source code and enter text at that position.

For example, consider the line of C++ code shown in Listing 9.1 on page 83.

Listing 9.1 Sample C++ source code

```
void aFunction (const char * inMessage)          virtualspace
```

Toggling virtual space changes the cursor behavior:

- enabled—clicking in the *virtualspace* places the cursor at the location that you clicked. You can enter text at that location.
- disabled—clicking in the *virtualspace* places the cursor after the last character on the line (in the example, after the closing parenthesis). To place the cursor beyond this character, you must repeatedly press the space bar on your keyboard.

To use virtual space, follow these steps:

1. Select **Edit > Preferences.**

   The **IDE Preferences** window opens.
2. Select **Editor Settings** in the IDE Preference Panels list.

   The Editor Settings preference panel appears.
3. Select the **Enable Virtual Space** option:
4. Click **Apply** or **Save** to save your changes to the preference panel.
5. Close the IDE Preferences window.

Indenting and Unindenting Text Blocks

Use the **Shift Left** and **Shift Right** commands to shift a selected block of text to the left or right. You can indent or unindent one or more lines using these commands. The **Tab Size** option specifies the amount of indentation.

1. Select the text to be shifted.
2. Indent or unindent the selected text.
   - To unindent text: Choose **Edit > Shift-Left**.
   - To indent text: Choose **Edit > Shift-Right**.

Symbol Editing Shortcuts

You can use the browser contextual menu to enhance source-code editing in the IDE. Use this menu to streamline text entry in editor windows. You can enter the first few letters of a function name, then use the browser contextual menu to complete the entry.

The IDE also provides these keyboard shortcuts with the browser enabled:

- **Find symbols with prefix**—find symbols matching the selected prefix
- **Find symbols with substring**—find symbols matching the selected substring
- **Get next symbol**—obtain the next symbol from the browser database
- **Get previous symbol**—obtain the previous symbol from the browser database

Punctuation Balancing

Balance punctuation to ensure that each opening parenthesis, bracket, or brace has a corresponding closing counterpart. This section explains how to balance punctuation.

Balancing Punctuation

Use the **Balance** option when editing source code to make sure that every parenthesis (( )), bracket ([ ]), and brace ({ }) has a mate.

1. Position the cursor between the suspect punctuation.
2. Check for the matching punctuation.
   - Choose **Edit > Balance**

   OR

   - Double-click the parenthesis, bracket, or brace character to check for a matching character.

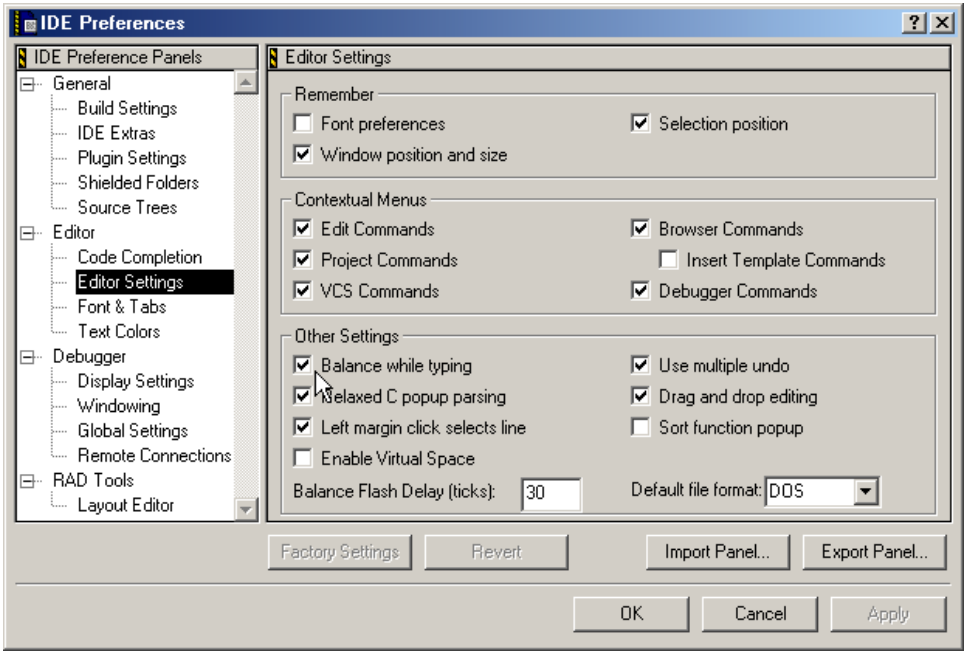
From a text insertion point, the editor searches forward until it finds a parenthesis, bracket, or brace, then it searches in the opposite direction until it finds the matching punctuation. When double-clicking on a parenthesis, bracket, or brace, the editor searches in the opposite direction until it finds the matching punctuation.

When it finds a match, it highlights the text between the matching characters. If the insertion point is not enclosed or if the punctuation is unbalanced, the computer beeps.

Toggling Automatic Punctuation Balancing

Use the **Editor Settings** to enable or disable the punctuation balancing feature.

Figure 9.1 Editor Settings (Balance While Typing)



To toggle automatic punctuation balancing, follow these steps:

1. Select **Edit > Preferences.**

   This opens the **IDE Preferences** window.

2. In the **IDE Preference Panels** list, select **Editor Settings**.

3. In the **Other Settings** area of Editor Settings, select or clear the **Balance While Typing** checkbox.

Code Completion

Use code completion to have the IDE automatically suggest ways to complete the symbols you enter in a source file. By using code completion, you avoid referring to other files to remember available symbols.

C/C++ Code Completion will function more effectively when “Language Parser” is selected for the “Generate Browser Data From” option in the Build Extras target settings panel for a project. Java Code Completion is not affected by this setting.

Code Completion Configuration

You can activate, deactivate, and customize code-completion operation. These tasks are associated with code completion:

- Activate automatic code completion
- Trigger code completion from the IDE menu bar
- Trigger code completion from the keyboard
- Deactivate automatic code completion

Activating Automatic Code Completion

Activate automatic code completion to have the IDE display a Code Completion window that helps you complete the symbols you enter in source code. The **Code Completion** preference panel configures the Code Completion window behavior.

1. Choose **Edit > Preferences**.

   The **IDE Preferences** window appears.

2. Select the **Code Completion** preference panel in the **IDE Preference Panels** list.

3. Select the **Automatic Invocation on page 240** option.

   Selecting this option configures the IDE to automatically open the Code Completion window.

4. Enter a delay in the **Code Completion Delay on page 242** field.

   This delay determines how long the IDE waits between the time you type a trigger character and the time the Code Completion window appears. If you perform any action during this delay time, the IDE cancels the Code Completion operation.

5. Save your preferences.

   Click the **Save** or **Apply** button.

The Code Completion window now appears automatically to help you complete code in editor windows.

Triggering Code Completion from the IDE Menu

Trigger code completion from the main menu to open the Code Completion window.

1. Bring forward an editor window.
2. Begin typing or place insertion point at end of source code that you want to complete.

3. Choose **Edit > Complete Code**

   The Code Completion window appears. Use it to complete the symbol at the insertion point.

Triggering Code Completion from the Keyboard

To open code completion from the keyboard:

1. Bring forward an editor window.
2. Begin typing or place insertion point at end of source code to complete.
3. Press the appropriate code completion shortcut key combination.

   Table 9.2 on page 87 lists the default code completion key bindings. Use the **Customize IDE Commands** panel to change these key bindings.

Table 9.2 Code Completion key bindings

Host	Get Next Completion	Get Previous Completion	Complete Code
Windows	Alt-/	Alt-Shift-/	Alt-.

Deactivating Automatic Code Completion

Deactivate automatic code completion to prevent the IDE from displaying the Code Completion window as you edit source code. The **Code Completion** preference panel configures Code Completion window behavior.

You can still manually trigger code-completion functionality from the keyboard or from the main menu.

NOTE To dismiss the Code Completion window after it automatically opens, press the **Esc** key or click outside the active editor window.

1. Choose **Edit > Preferences**.
2. Select the **Code Completion** preference panel in the **IDE Preference Panels** list.
3. Disable the **Automatic Invocation on page 240** option.

   Clearing this option prevents the IDE from automatically opening the Code Completion window.

4. Save your preferences.

   Click the **Save** or **Apply** button.

Code Completion Window

The Code Completion window displays possible symbols based on the context of the insertion point. For example, in Java you can complete code for any Java class, method, and variable from any package that has been imported or is being used elsewhere in the project.

Figure 9.2 on page 88 shows the Code Completion window. Table 9.3 on page 89 explains the items in the Code Completion window. Table 9.4 on page 89 explains the icons that appear in the Code Completion list.

Figure 9.2 Code Completion window

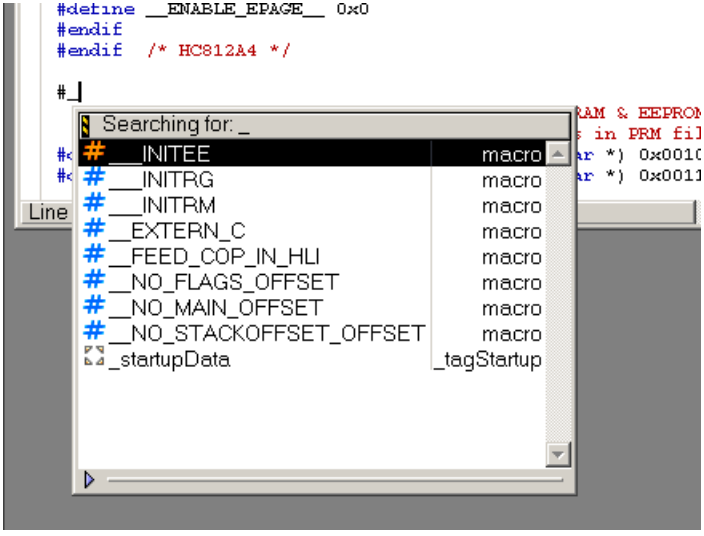


Table 9.3 Code Completion window—items

Item	Icon	Explanation
Code Completion list		Lists available variables and methods or functions along with their corresponding return types or parameters. This list changes based on the context of the insertion point in the active editor window. Icons help distinguish items in the list.
Disclosure Triangle		Click to toggle display of Documentation pane for programming languages that support it.
Resize Bar		Drag to resize the Code Completion list and the Documentation pane.
Documentation pane		Displays summary information or documentation for the selected item in the Code Completion list. This pane appears only for programming languages that support summary information or documentation.

Table 9.4 Code Completion window—icons

Icon	Code Type	Icon	Code Type
	Class		Method
	Function		Namespace
	Global Variable		None
	Language Keyword		Package
	Local Variable		Variable
	Constant		

Navigating the Code Completion Window

Navigate the Code Completion window by mouse or keyboard. You can perform these tasks:

- Resize the window
- Navigate the window by keyboard
- Refine the Code Completion list by keyboard

1. Bring forward an editor window.
2. Place the insertion point at the end of the source code to complete.
3. Choose **Edit > Complete Code** or use keyboard shortcut.

   The Code Completion window appears.
4. Use the mouse to resize the Code Completion window (Mac and Windows).

   The new window size remains in effect until you refine the Code Completion list or close the Code Completion window. You refine the Code Completion list by typing additional characters in the active editor window.
5. Use the keyboard to navigate the Code Completion list.

   Table 9.5 on page 90 explains how to navigate the Code Completion list by keyboard.

Table 9.5 Navigating the Code Completion list by keyboard

Key	Action
Up Arrow	Select the previous item
Down Arrow	Select the next item
Page Up	Scroll to the previous page
Page Down	Scroll to the next page

6. Use the keyboard to refine the Code Completion list.

   The Code Completion list updates as you add or delete characters in the active editor window. Continue adding characters to narrow the list, or delete existing characters to broaden the list. Press the Backspace key to delete characters.

Selecting an Item in the Code Completion Window

Select an item in the Code Completion window to have the IDE enter that item in the active editor window at the insertion point.

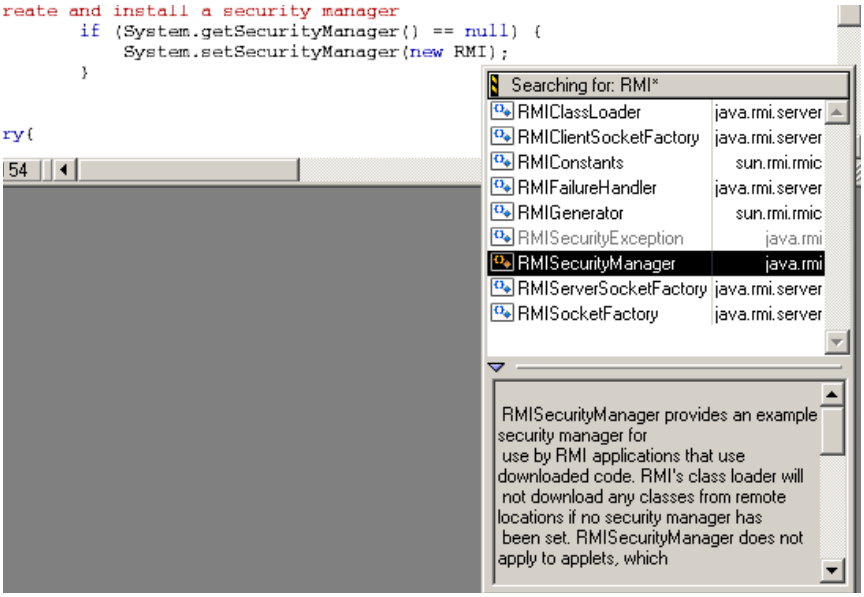
1. Bring forward an editor window.
2. Place the insertion point at the end of the source code to complete.
3. Choose **Edit > Complete Code**.
4. Select an item in the Code Completion list.
5. Enter the item into the active editor window.

   Press the **Return** or **Enter** keys on the keyboard or double-click the item to have the IDE insert that item into the editor window.

Completing Code for Data Members and Data Types

Complete code for data members for programming languages that support it. For a list of data members type the period (`.`) character and activate the code completion window. Figure 9.3 on page 92 shows an example of helping you select the correct data type depending on what code has been typed in the source file.

Figure 9.3 Code Completion List of Data Types


reate and install a security manager
if (System.getSecurityManager() == null) {
System.setSecurityManager(new RMI);
}
ry(
54
Searching for: RMI*
RMIClassLoader java.rmi.server
RMIClientSocketFactory java.rmi.server
RMIConstants sun.rmi.rmic
RMIFailureHandler java.rmi.server
RMIGenerator sun.rmi.rmic
RMISecurityException java.rmi
RMISecurityManager java.rmi
RMIServerSocketFactory java.rmi.server
RMISocketFactory java.rmi.server
RMISecurityManager provides an example security manager for use by RMI applications that use downloaded code. RMI's class loader will not download any classes from remote locations if no security manager has been set. RMISecurityManager does not apply to applets, which

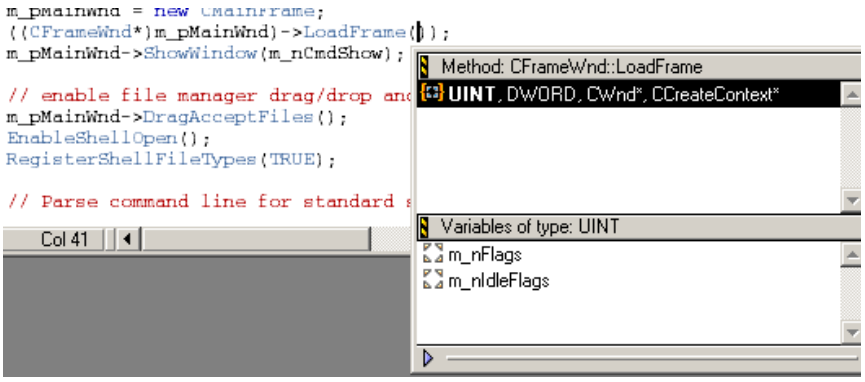
Completing Code for Parameter Lists

Complete code for parameter lists for programming languages that support it. For example, you can complete code for parameter lists by typing the open parenthesis (character.

1. Bring forward an editor window.
2. Place the insertion point at the end of the function or method to complete.
3. Type an open parenthesis to trigger a parameter-list.
4. The Code Completion window appears.

   The upper portion of this window lists different (overloaded) versions of the function or method. The lower portion shows possible parameter lists for the selected function or method in the top portion. Use this window to complete the parameter list for the function or method.

Figure 9.4 Code Completion for Parameter Lists



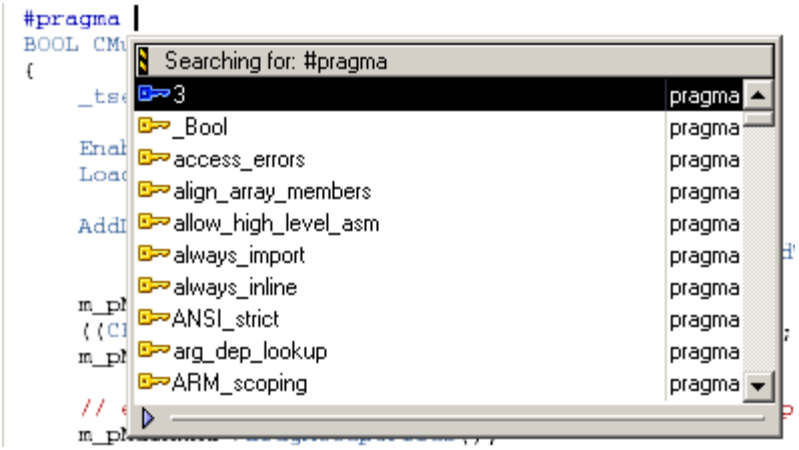
Completing Code for Pragmas

You can display a list of pragmas in the code completion window.

1. Bring forward an editor window.
2. In your source file, type #pragma followed by a space.
3. Activate the code completion window (`Alt .`).

The code completion window will display a list of pragmas.

Figure 9.5 Code Completion for Pragmas



10

Navigating Source Code

This chapter explains how to navigate source code in the CodeWarrior™ IDE. Navigate source code to accomplish these tasks:

- Find specific items—the editor finds interface files, functions, and lines of source code.
- Go to a specific line—the editor can scroll to a specific line of source code.
- Use markers—the editor allows labelling of specific items of text. These labels, or markers, provide intuitive navigation of text.

Read this chapter to learn more about typical tasks for navigating source code.

This chapter contains these sections:

- "Finding Interface Files, Functions, and Lines" on page 95
- "Going Back and Forward" on page 97
- "Using Markers" on page 98
- "Symbol Definitions" on page 100

Finding Interface Files, Functions, and Lines

Find interface files, functions, and lines of source code to expedite programming. You can find these types of items:

- interface files
- functions
- lines of source code

Finding Interface Files

Find interface (header) files referenced by the current source code. Some programming languages, such as C++, use interface files in conjunction with source code. Interface files typically define functions or objects used in the source code. Interface files also separate function or object declarations from implementations. This section explains how to find interface files.

Using the Interface Menu

Use the Interface menu in editor windows to open interface or header files referenced by the current file. The project file must be open for the Interface menu to operate.

1. Click the Interface menu.
2. Select the filename of the interface file that you want to open.

   If found, the file is opened in an editor window. If not found, an alert sounds.

NOTE Only source code interface files can be opened. Libraries and pre-compiled header files can not be opened.

Locating Functions

Find functions to expedite source-code editing. Most source files contain several functions that divide a complicated task into a series of simpler tasks. The editor allows scrolling to individual functions within the current source file. This section explains how to find functions.

Using the Functions Menu

Use the Functions menu in editor windows to quickly navigate to specific functions or routines in the current source file.

1. Click the Functions menu.
2. Select the function name to view.

The editor scrolls to display the selected function.

Alphabetizing Functions Menu with the Mouse and Keyboard

The default behavior of the Functions menu is to list functions in order of appearance in the source file. You can use the mouse and keyboard to list functions in alphabetical order.

Table 10.1 on page 97 Alphabetizing the Functions list on page 97 explains how to use the mouse and keyboard to alphabetize functions in the Functions menu.

Table 10.1 Alphabetizing the Functions list

On this host...	Do this...
Windows	Ctrl-click the Functions menu.

Alphabetizing Functions Menu Order

The default behavior of the Functions menu is to list functions in order of appearance in the source file. You can select the **Sort function popup on page 258** option in the **Editor Settings** preference panel to list functions in alphabetical order.

1. Open the **IDE Preferences** window.

   Choose **Edit > Preferences**.
2. Select the **Editor Settings** preference panel.
3. Select the **Sort function popup on page 258** option.
4. Save your modifications to the **Editor Settings** panel.

Going Back and Forward

Go back and forward in source files to edit existing code. Most source files contain more than one screen of code. The editor always counts the number of lines in the source files. Go to a particular line to scroll a particular item into view.

Going to a Line

Use the **Goto Line** command to navigate to a specific source line in an editor window if you know its number. Lines are numbered consecutively, with the first line designated as line 1. The **Line Number** control at the bottom of the editor window shows the line number where the text insertion point is positioned.

1. Open the Line Number window.
   - Click the **Line and Column Indicator** control in bottom left corner of editor window, or
   - Choose **Search > Go To Line**
2. Type a line number in the **Line Number** text box.
3. Click **OK**.

NOTE If a line number does not exist, the insertion point jumps to the last line of the source file.

Using Markers

Markers behave like labels in the editor, identifying specific parts of source code. Use these tasks to work with markers:

- Add markers to a source file
- Navigate to a marker
- Remove some or all markers from a source file

Remove Markers Window

Use the **Remove Markers** window to manage the use of destination markers in source files. Figure 10.1 on page 98 shows the Remove Markers window. Table 10.2 on page 99 explains the items in the window.

Figure 10.1 Remove Marker window

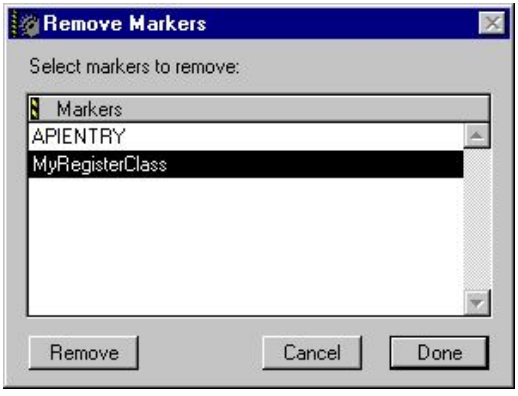


Table 10.2 Remove Markers window—items

Item	Explanation
Markers list	Displays a list of all markers in the current source file.
Remove button	Click to remove all selected markers.
Cancel button	Click to close the Remove Markers window without applying changes.
Done button	Click to close the Remove Markers window and apply changes.

Adding Markers to a Source File

Use the **Add Marker** command to add a marker to a file to identify specific line locations by name.

1. Position the cursor on a line.
2. Click on Marker icon and select Add Marker.
3. Type a name for the new marker.
4. Click **Add**.

The IDE adds the marker to the file.

Navigating to a Marker

Once you add a marker, you can use the Marker menu to return to it later.

1. Select the marker name from the Marker menu.
2. The editor window scrolls to display the selected marker.

Removing a Marker from a Source File

Use the **Remove Marker** command to remove one or more markers from a source file.

1. Click Marker icon and select Remove Markers
2. Select the marker name to remove from the list.
3. Click **Remove**.

   The IDE removes the selected marker.

Removing All Markers from a Source File

Use the **Remove Marker** command to remove one or more markers from a source file.

1. Click Marker icon and select Remove Markers
2. Select all markers in the **Markers** list, as explained in Table 10.3 on page 100.

Table 10.3 Selecting all markers in the Markers list

On this host…	Do this…
Windows	Shift-click each marker name in the list.

3. Click **Remove**.

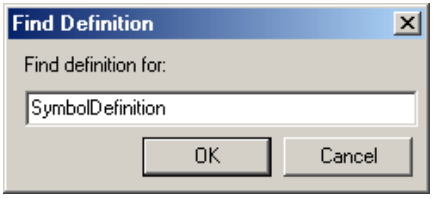
   The IDE removes all markers.

Symbol Definitions

You can find a symbol definition in your project's source code. Supported online reference viewers include HTMLHelp for Windows.

TIP You can also use the browser to look up symbol definitions.

Figure 10.2 Find Definition



Looking Up Symbol Definitions

To look up the definition of a selected symbol, follow these steps:

1. Choose **Search > Find Definition**
2. Enter the symbol definition.

3. Click **OK**.

   CodeWarrior searches all files in your project for the symbol definition.

   If CodeWarrior finds a definition, it opens an editor window and highlights the definition for you to examine.

TIP To return to your original location after viewing a symbol definition, press Shift-Ctrl B. This key binding is equivalent to the **Go Back** menu command.

11

Finding and Replacing Text

This chapter explains how to work with the find-and-replace features in the CodeWarrior™ IDE.

This chapter contains these sections:

- "Single-File Find" on page 103
- "Single-File Find and Replace" on page 105
- "Multiple-File Find and Replace" on page 108
- "Search Results Window" on page 118
- "Text-Selection Find" on page 120
- "Regular-Expression Find" on page 122
- "Comparing Files and Folders" on page 126

Single-File Find

Use the **Find** window to search for text within a single file:

- The **Find** operation returns a single instance of matching text.
- The **Find All** operation returns all instances of matching text.

Figure 11.1 on page 103 shows the Find window. Table 11.1 on page 104 explains the items in the Find window.

Figure 11.1 Find window

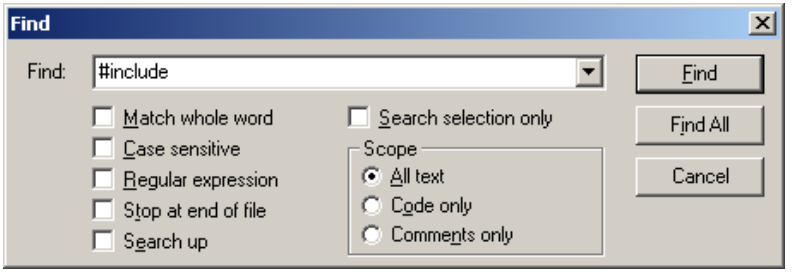


Table 11.1 Find window—items

Item	Explanation
Find text/list box	Enter a search string. Click the arrow symbol to select a search string that you entered previously.
Find button	Click to start a search operation using the string in the Find text/list box.
Find All button	Click to search for all matches in the active editor window.
Cancel button	Click to close the Find window without performing a search.
Match whole word checkbox	Check to search for whole-word matches only, ignoring matches within words. Clear to search for all matches of the search string, including matches within words.
Case sensitive checkbox	Check to consider text case during the search. The search operation distinguishes between a capital letter and the same letter in lower case. Clear to disregard text case during the search. The search operation does not distinguish between a capital letter and the same letter in lower case.
Regular expression checkbox	Check to treat the search string as a regular expression. Clear to treat the search string as plain text.
Stop at end of file checkbox	Check to stop a search at the end of a file and not wrap around to the beginning of the file. Clear to wrap around to the beginning of the file and continue a search. The search stops at the first match or at the current cursor position.
Search up checkbox	Check to perform a search operation back from the current selection. Clear to perform a search operation forward of the current selection

Table 11.1 Find window—items (*continued*)

Item	Explanation
Search selection only checkbox	Check to search only the currently selected text and not the entire file. Clear to search the entire file.
All text option button	Select to search all text in the file.
Code only option button	Select to search only source code in the file.
Comments only option button	Select to search only comments in the file.

Searching Text in a Single File

Use the **Find** command to search for text in the active editor window.

1. Click **Search > Find**.

   The Find window appears.

2. Enter search text into **Find** text/list box.
3. Set search options.
4. Click the **Find** or **Find All** button to start the search.

The IDE searches the current file until it finds a match or reaches the end of the search. A single match appears highlighted in the editor window, or multiple matches appear in a Search Results window. The IDE beeps if it does not find any matching text.

TIP If you clicked the Find button to start the search, click **Search > Find Next** to find the next match in the file.

Single-File Find and Replace

Use the **Find and Replace** window to perform these tasks:

- Search a single file.
- Replace found text in a single file.

Figure 11.2 on page 106 shows the Find and Replace window. Table 11.2 on page 106 explains the items in the Find and Replace window.

Figure 11.2 Find and Replace window

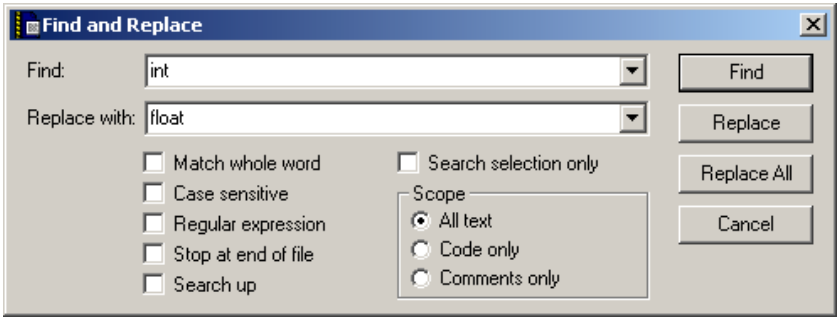


Table 11.2 Find and Replace window—items

Item	Explanation
Find text/list box	Enter a search string. Click the arrow symbol to select a search string that you entered previously.
Replace with text/list box	Enter the replacement string. Click the arrow symbol to select a replacement string that you entered previously.
Find button	Click to start a search operation using the string in the Find text/list box.
Replace button	Click to replace the current match with the replacement string.
Replace All button	Click to replace all matches with the replacement string.
Cancel button	Click to close the Find and Replace window without performing a search.
Match whole word checkbox	Check to search for whole-word matches only, ignoring matches within words. Clear to search for all matches of the search string, including matches within words.

Table 11.2 Find and Replace window—items (*continued*)

Item	Explanation
Case sensitive checkbox	Check to consider text case during the search. The search operation distinguishes between a capital letter and the same letter in lower case. Clear to disregard text case during the search. The search operation does not distinguish between a capital letter and the same letter in lower case.
Regular expression checkbox	Check to treat the search string as a regular expression. Clear to treat the search string as plain text.
Stop at end of file checkbox	Check to stop a search at the end of a file and not wrap around to the beginning of the file. Clear to wrap around to the beginning of the file and continue a search. The search stops at the first match or at the current cursor position.
Search up checkbox	Check to perform a search operation back from the current selection. Clear to perform a search operation forward of the current selection
Search selection only checkbox	Check to search only the currently selected text and not the entire file. Clear to search the entire file.
All text option button	Select to search all text in the file.
Code only option button	Select to search only source code in the file.
Comments only option button	Select to search only comments in the file.

Replacing Text in a Single File

Use the **Replace** command to replace matching text.

1. Click **Search > Replace** or **Search > Find and Replace**.

   The Find window appears.

2. Enter search text into the **Find** text/list box.
3. Enter replacement text into the **Replace with** text/list box.
4. Set search options.
5. Find and replace text:
   a. Click the **Find** button to search for matching text.

      The IDE searches the current file until it finds a match or reaches the end of the search. A single match appears highlighted in the editor window. The IDE beeps if it does not find any matching text.

   b. Click the **Replace** or **Replace All** button to replace the matching text.

      Click the Replace button to replace the current match. Click the Replace button repeatedly to replace subsequent matches. Click the Replace All button to replace all matching text in the file.

To replace consecutive matches, click the Find button to find the first match, then repeatedly click the Replace button. To replace one match at a time, or to replace non-consecutive matches, click the Find button to find a match, then click the Replace button as needed.

TIP If you clicked the Find button to start the search, click **Search > Find Next** to find the next match in the file.

Multiple-File Find and Replace

Use the **Find in Files** window to perform these tasks:

- Search several files.
- Replace found text in multiple files, folders, symbolics files, or projects.
- Replace found text in files within a specific build target.

Figure 11.3 on page 109 shows the Find in Files window. Table 11.3 on page 109 explains the items in
the window.

Figure 11.3 Find in Files window

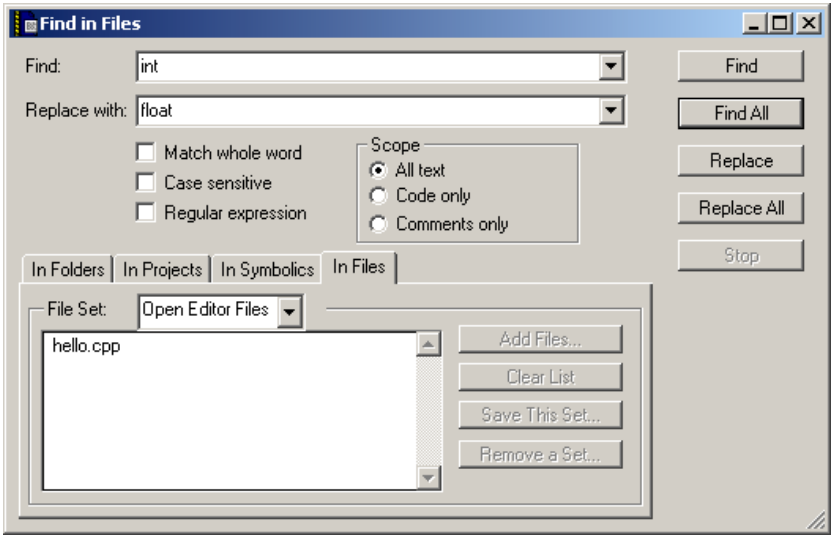


Table 11.3 Find in Files window—items

Item	Explanation
Find text/list box	Enter a search string. Click the arrow symbol to select a search string that you entered previously.
Replace with text/list box	Enter the replacement string. Click the arrow symbol to select a replacement string that you entered previously.
Find button	Click to start a search operation using the string in the Find text/ list box.
Find All button	Click to search for all matches in the selected items.
Replace button	Click to replace the current match with the replacement string.
Replace All button	Click to replace all matches with the replacement string.
Stop button	Click to stop the current operation.

Table 11.3 Find in Files window—items (*continued*)

Item	Explanation
Match whole word checkbox	Check to search for whole-word matches only, ignoring matches within words. Clear to search for all matches of the search string, including matches within words.
Case sensitive checkbox	Check to consider text case during the search. The search operation distinguishes between a capital letter and the same letter in lower case. Clear to disregard text case during the search. The search operation does not distinguish between a capital letter and the same letter in lower case.
Regular expression checkbox	Check to treat the search string as a regular expression. Clear to treat the search string as plain text.
All text option button	Select to search all text in the selected items.
Code only option button	Select to search only source code in selected items.
Comments only option button	Select to search only comments in selected items.
In Folders on page 111 tab	Click to bring forward the In Folders page. Use this page to search specific folders in the host file system.
In Projects on page 112 tab	Click to bring forward the In Projects page. Use this page to search active projects and build targets.
In Symbolics on page 115 tab	Click to bring forward the In Symbolics page. Use this page to search files containing symbolics (debugging and browsing) information generated by the IDE.
In Files on page 117 tab	Click to bring forward the In Files page. Use this page to search files contained in custom file sets.

In Folders

Use the **In Folders** page to search folder contents for matching text. Figure 11.4 on page 111 shows the In Folders page. Table 11.4 on page 111 explains the items in the page.

Figure 11.4 Find in Files window—In Folders page

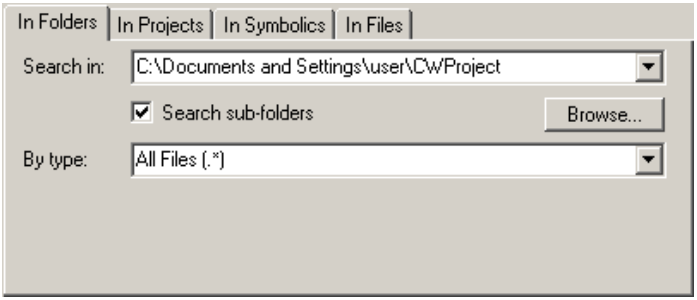


Table 11.4 Find in Files window—In Folders items

Item	Explanation
Search in text/list box	Enter the path to the folder that you want to search. Click the arrow symbol to select a path that you entered previously.
Browse button	Click to open a dialog box that lets you pick the folder that you want to search.
Search sub-folders checkbox	Check to search sub-folders of the selected folder. Clear to search the selected folder only, ignoring any sub-folders it may contain.
By type text/list box	Enter the filename extensions of the files that you want to search. Click the arrow symbol to select a set of filename extensions. The search ignores files whose filename extensions do not appear in this text/list box.

Searching for Text Across Multiple Folders

Use the **In Folders** page to search for text in folder contents.

1. Click **Search > Find in Files**.

   The Find in Files window appears.
2. Enter search text into the **Find** text/list box.
3. Enter replacement text into the **Replace with** text/list box.
4. Set general search options.
5. Set the **In Folders** page search options:
   a. Enter a folder path into the **Search in** text/list box, or click the **Browse** button to select a folder.
   b. Check or clear the **Search sub-folders** checkbox.
   c. Enter filename extensions into the **By type** text/list box.
6. Find and replace text:
   a. Click the **Find** or **Find All** button to search for matching text.

      The IDE searches the specified folder contents until it finds a match or reaches the end of the search. A single match appears highlighted in an editor window, or multiple matches appear in a Search Results window. The IDE beeps if it does not find any matching text.
   b. Click the **Replace** or **Replace All** button to replace the matching text.

      Click the Replace button to replace the current match. Click the Replace button repeatedly to replace subsequent matches. Click the Replace All button to replace all matching text.

To replace consecutive matches, click the Find button to find the first match, then repeatedly click the Replace button. To replace one match at a time, or to replace non-consecutive matches, click the Find button to find a match, then click the Replace button as needed.

TIP If you clicked the Find button to start the search, click **Search > Find Next** to find the next match.

In Projects

Use the **In Projects** page to search active projects and build targets for matching text. Figure 11.5 on page 113 shows the In Projects page. Table 11.5 on page 113 explains the items in the page.

Figure 11.5 Find in Files window—In Projects page

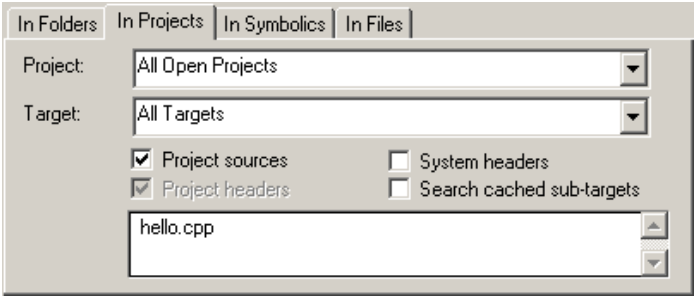


Table 11.5 Find in Files window—In Projects items

Item	Explanation
Project list box	Specify the projects that you want to search.
Target list box	Specify the build targets that you want to search.
Project sources checkbox	Check to search the source-code files of selected projects. Clear to ignore source-code files of selected projects.
Project headers checkbox	Check to search the header files of selected projects. Clear to ignore header files of selected projects.
System headers checkbox	Check to search system header files. Clear to ignore system header files.
Search cached sub-targets checkbox	Check to search sub-targets that the IDE cached for the selected build targets. Clear to ignore the sub-targets that the IDE cached for the selected build targets.
File list	This list shows files that the IDE will search. To remove a file from this list, select it and press Backspace or Delete. To open a file in this list, double-click its name.

Searching for Text Across Multiple Projects

Use the **In Projects** page to search for text in active projects and build targets.

1. Click **Project > Make**.

   The IDE updates the project data to correctly list source-code files, header files, and build targets in the **In Projects** page of the **Find in Files** window.

2. Click **Search > Find in Files**.

   The Find in Files window appears.

3. Enter search text into the **Find** text/list box.
4. Enter replacement text into the **Replace with** text/list box.
5. Set general search options.
6. Set the **In Projects** page search options:
   a. Use the **Project** list box to specify the projects that you want to search.
   b. Use the **Target** list box to specify the build targets that you want to search.
   c. Check or clear the checkboxes to refine your search criteria.
   d. Remove files from the File list as needed.
7. Find and replace text:
   a. Click the **Find** or **Find All** button to search for matching text.

      The IDE searches the specified projects and build targets until it finds a match or reaches the end of the search. A single match appears highlighted in an editor window, or multiple matches appear in a Search Results window. The IDE beeps if it does not find any matching text.

   b. Click the **Replace** or **Replace All** button to replace the matching text.

      Click the Replace button to replace the current match. Click the Replace button repeatedly to replace subsequent matches. Click the Replace All button to replace all matching text.

To replace consecutive matches, click the Find button to find the first match, then repeatedly click the Replace button. To replace one match at a time, or to replace non-consecutive matches, click the Find button to find a match, then click the Replace button as needed.

TIP If you clicked the Find button to start the search, click **Search > Find Next** to find the next match.

In Symbolics

Use the **In Symbolics** page to search files containing symbolics information for matching text. Figure 11.6 on page 115 shows the In Symbolics page. Table 11.6 on page 115 explains the items in the page.

Figure 11.6 Find in Files window—In Symbolics page

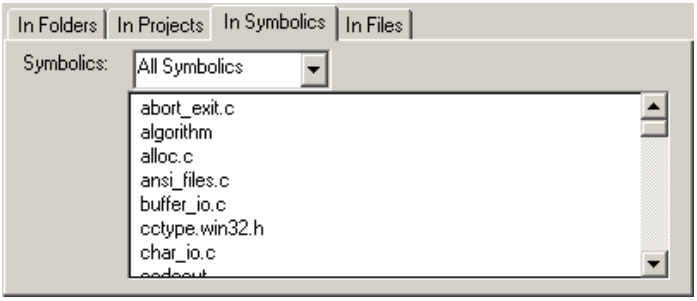


Table 11.6 Find in Files window—In Symbolics items

Item	Explanation
Symbolics list box	Specify the symbolics files that you want to search.
Symbolics list	This list shows the symbolics files that the IDE will search. To remove a file from this list, select it and press Backspace or Delete. To open a file in this list, double-click its name.

Searching for Text Across Multiple Symbolics Files

Use the **In Symbolics** page to search for text in symbolics files. You must generate browser data in order to search symbolics files.

1. Enable browser data for the build targets that you want to search.

   Use the **Build Extras** target settings panel to **Generate Browser Data From** a compiler or language parser, then **Apply** or **Save** your changes. Configuring this option enables browser data.

2. Click **Project > Debug**.

   Starting a debugging session causes the IDE to generate browser data for the project.

NOTE The IDE does not generate browser data for some files, such as libraries.

3. Click **Debug > Kill**.

   The debugging session ends.

4. Click **Search > Find in Files**.

   The Find in Files window appears.

5. Enter search text into the **Find** text/list box.
6. Enter replacement text into the **Replace with** text/list box.
7. Set general search options.
8. Set the **In Symbolics** page search options:
   a. Use the **Symbolics** list box to specify the symbolics files that you want to search.
   b. Remove symbolics files from the Symbolics list as needed.
9. Find and replace text:
   a. Click the **Find** or **Find All** button to search for matching text.

      The IDE searches the specified symbolics files until it finds a match or reaches the end of the search. A single match appears highlighted in an editor window, or multiple matches appear in a Search Results window. The IDE beeps if it does not find any matching text.

   b. Click the **Replace** or **Replace All** button to replace the matching text.

      Click the Replace button to replace the current match. Click the Replace button repeatedly to replace subsequent matches. Click the Replace All button to replace all matching text.

To replace consecutive matches, click the Find button to find the first match, then repeatedly click the Replace button. To replace one match at a time, or to replace non-consecutive matches, click the Find button to find a match, then click the Replace button as needed.

TIP If you clicked the Find button to start the search, click **Search > Find Next** to find the next match.

In Files

Use the **In Files** page to search file sets for matching text. Figure 11.7 on page 117 shows the In Files page. Table 11.7 on page 117 explains the items in the page.

Figure 11.7 Find in Files window—In Files page

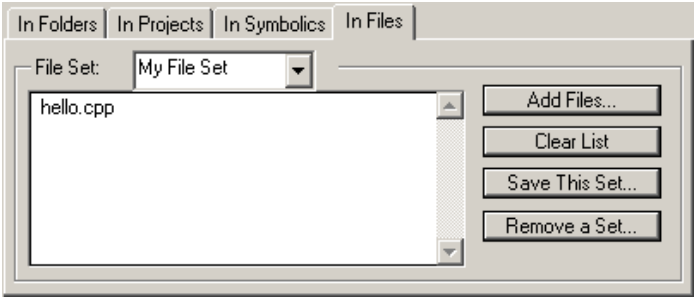


Table 11.7 Find in Files window—In Files items

Item	Explanation
File Set list box	Specify the file set that you want to search. Select **New File Set** to create a new set.
File Set list	This list shows the files that the IDE will search. To remove a file from this list, select it and press Backspace or Delete. To add files to this list, click the **Add Files** button, or drag and drop files and folders into the list. To open a file in this list, double-click its name.
Add Files button	Click to open a dialog box that lets you add files to the current file set. To enable this button, select from the File Set list box an existing file set or the **New File Set** option.
Clear List button	Click to clear the current File Set list. To enable this button, select from the File Set list box a file set that has at least one file.
Save This Set button	Click to save the current file set under a specific name. The file set must have at least one file. The name appears in the File Set list box. To enable this button, modify the current file set or select an existing file set from the File Set list box.
Remove a Set button	Click to open a dialog box that lets you remove file sets that you created previously. The removed file sets no longer appear in the File Set list box. To enable this button, select from the File Set list box an existing file set or the **New File Set** option.

Searching for Text Across Multiple Files

Use the **In Files** page to search for text in file sets.

1. Click **Search > Find in Files**.

   The Find in Files window appears.
2. Enter search text into the **Find** text/list box.
3. Enter replacement text into the **Replace with** text/list box.
4. Set general search options.
5. Set the **In Files** page search options:
   a. Use the **File Set** list box to specify the file set that you want to search.
   b. Use the buttons to manage the File Set list as needed.
   c. Remove files from the File Set list as needed.
6. Find and replace text:
   a. Click the **Find** or **Find All** button to search for matching text.

      The IDE searches the specified files until it finds a match or reaches the end of the search. A single match appears highlighted in an editor window, or multiple matches appear in a Search Results window. The IDE beeps if it does not find any matching text.
   b. Click the **Replace** or **Replace All** button to replace the matching text.

      Click the Replace button to replace the current match. Click the Replace button repeatedly to replace subsequent matches. Click the Replace All button to replace all matching text.

To replace consecutive matches, click the Find button to find the first match, then repeatedly click the Replace button. To replace one match at a time, or to replace non-consecutive matches, click the Find button to find a match, then click the Replace button as needed.

TIP If you clicked the Find button to start the search, click **Search > Find Next** to find the next match in the file.

Search Results Window

Use the **Search Results** window to explore multiple matches that the IDE finds. The IDE opens this window automatically after it finds multiple matches. Also use this window to stop searches in progress.

Figure 11.8 on page 119 shows the Search Results window. Table 11.8 on page 119 explains the items in the window.

Figure 11.8 Search Results window

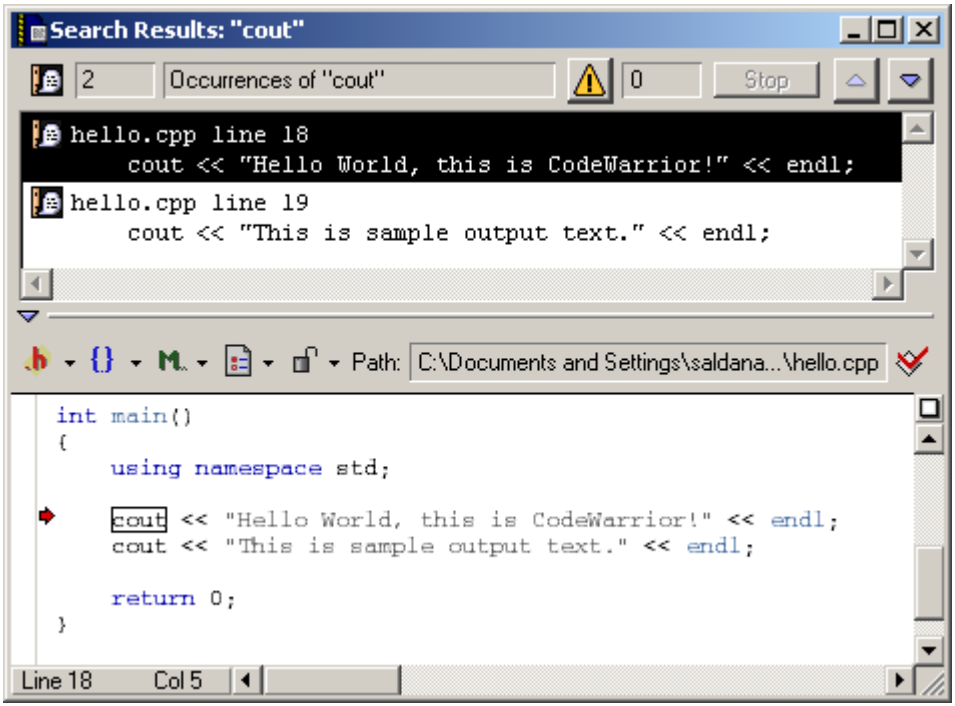


Table 11.8 Search Results window—items

Item	Icon	Explanation
Result Count text box	2	Shows the total number of search results.
Search Criteria text box	Occurrences of "cout"	Shows the search criteria.

Table 11.8 Search Results window—items (*continued*)

Item	Icon	Explanation
Warnings button		Click to display complier and linker warnings in the Results pane. The text box to the right of this button shows the total number of warnings.
Stop button		Click to stop the search in progress.
Previous Result button		Click to select the previous search result.
Next Result button		Click to select the next search result.
Results pane		Lists individual search results.
Source Code pane disclosure triangle		Click to show or hide the Source Code pane.
Pane resize bar		Drag to resize the Results and Source Code panes.
Source Code pane		Shows the source code corresponding to the selected item in the Results pane. This pane operates the same as an editor window without pane-splitter controls.

Text-Selection Find

After you use the **Find**, **Find and Replace**, or **Find in Files** windows to perform a successful search, you can use menu commands to apply the same search criteria to additional searches. This way, you do not have to open the windows again to use the same search criteria. You select text in the active editor window to define the search string.

Using the Find Next Command

When searching for text, you can use the **Find Next** command to have the IDE find the next match:

1. Start a search with the **Find**, **Find and Replace**, or **Find in Files** windows.
2. After the IDE finds a match, click **Search > Find Next** to find a subsequent match.

NOTE Find Next always searches forward and ignores the Search up checkbox.

Using the Find Previous Command

When searching for text, you can use the **Find Previous** command to have the IDE find the previous match. You must enable the Find Previous command in the **Customize IDE Commands** window.

1. Click **Edit > Commands & Key Bindings**.

   The Customize IDE Commands window opens.
2. Click the **Commands** tab in the Customize IDE Commands window.
3. Expand the **Search** item in the **Commands** pane tree structure.
4. Select the **Find Previous** item in the expanded list.

   Scroll as needed in order to see the Find Previous item. After you select the Find Previous item, its settings appear in **Details** pane.
5. Check the **Appears in Menus** checkbox.

   The Find Previous command will appear in the **Search** menu in the main IDE menu bar.
6. Click **Save** to confirm your changes.
7. Close the **Customize IDE Commands** window.

   You can now select the Find Previous command in the Search menu. You can also use the key binding associated with the command.

Changing the Find String

Use the **Enter Find String** command to change the current find string.

1. Select the text that you want to use as the new find string.
2. Click **Search > Enter Find String**.

   The selected text replaces the find string that you specified in the **Find**, **Find and Replace**, or **Find in Files** windows.

You can now use the new find string to perform find and replace operations.

Searching with a Text Selection

Use the **Find Selection** command to search the active editor window for selected text.

1. Select the text that you want to use as the search string.
2. Click **Search > Find Selection**.

The IDE searches the active editor window until it finds a match or reaches the end of the search. A single match appears highlighted in the editor window. The IDE beeps if it does not find any matching text.

You can also use the **Find Next** and **Find Previous** commands to search for additional matching text.

Regular-Expression Find

Use regular expressions to search text according to sophisticated text-matching rules. A *regular expression* is a text string used as a mask for matching text in a file. To use regular expressions, select **Regular expression** in the **Find**, **Find and Replace**, or **Find in Files** windows. Certain characters are operators with special meanings in a regular expression.

TIP For an in-depth description of regular expressions, refer to *Mastering Regular Expressions* by Jeffrey E.F. Friedl, published by O'Reilly & Associates, Inc.

Table 11.9 on page 122 explains the regular-expression operators that the IDE recognizes.

Table 11.9 Regular-expression operators recognized by the IDE

Operator	Name	Explanation
.	match any	Matches any single printing or non-printing character except `newline` and `null`.
*	match zero or more	Replaces the smallest/preceding regular expression with a sub-expression.

Table 11.9 Regular-expression operators recognized by the IDE (*continued*)

Operator	Name	Explanation
+	match one or more	Repeats the preceding regular expression at least once and then as many times as necessary to match the pattern.
?	match zero or one	Repeats the preceding regular expression once or not at all.
\n	back reference	Refers to a specified group (a unit expression enclosed in parentheses) in the find string. The digit n identifies the nth group, from left to right, with a number from 1 to 9.
|	alternation	Matches one of a choice of regular expressions. If this operator appears between two regular expressions, the IDE matches the largest union of strings.
^	match beginning of line	Matches items from the beginning of a string or following a newline character. This operator also represents a NOT operator when enclosed within brackets.
$	match end of line	Matches items from the end of a string or preceding a newline character.
[...]	list	Defines a set of items to use as a match. The IDE does not allow empty lists.
(...)	group	Defines an expression to be treated as a single unit elsewhere in the regular expression.
-	range	Specifies a range. The range starts with the character preceding the operator and ends with the character following the operator.

Table 11.10 on page 124 shows various examples of using regular expressions to match particular text in a text sample.

Table 11.10 Examples of using regular expressions

Example Type	This regular expression...	...matches this text...	...in this text sample:
Matching simple expressions	`ex`	`ex`	`sample text`
	`[(][.]stack[)]`	`(.stack)`	`ADDR(.stack)`
Matching any character	`var.`	`var1` `var2`	`cout << var1;` `cout << var2;`
	`c.t`	`cut` `cot`	`cin >> cutF;` `cin >> cotG;`
Repeating expressions	`s*ion`	`ion` `ssion`	`information` `the session`
	`s+ion`	`sion` `ssion`	`confusion` `the session`
Grouping expressions	`ris`	`ris`	`surprise`
	`r( i)s`	`r is`	`theVar is`
Choosing one character from many	`[bls]ag`	`sag bag lag`	`sagging bag lagged`
	`[[aeiou][0-9]`	`[2 u9`	`cout << a[2] << u9;`
	`[^bls]ag`	`rag`	`sagging rag lagged`
	`[-ab]V`	`aV -V`	`aVal-Val;`

Table 11.10 Examples of using regular expressions (*continued*)

Example Type	This regular expression...	...matches this text...	...in this text sample:
Matching line beginnings and endings	`^([\t]*cout)`	`cout` `  cout`	`cout << "no tab";` `  cout << "tab";`
	`(l*;)$`	`l;` `;`	`a-ct; a = battLvl;` `b-ct;`

Using the Find String in the Replace String

Use the `&` operator to incorporate matching text into a replacement string. The IDE substitutes the matching text for the `&` operator. Use `\&` to indicate a literal ampersand in the replacement string.

Table 11.11 on page 125 shows examples of using the find string in the replace string of regular expressions.

Table 11.11 Examples of using the find string in the replace string

Find string	Replace string	Matching text	After replacement
`var[0-9]`	`my_&`	`var1`	`my_var1`
`tgt`	`\&target`	`tgt`	`&target`

Remembering Sub-expressions

Use the `\n` construct to recall sub-expressions from the find string in the replacement string. The digit `n` ranges from 1 to 9 and represents the `n`th sub-expression in the find string, counting from left to right. Enclose each sub-expression in parentheses.

Consider these sample definitions:

- Find string: `\#define[ \t]+(.+)[ \t]+([0-9]+);`
- Replace string: `const int \1 = \2;`
- Sub-expression `\1`: `(.+)`
- Sub-expression `\2`: `([0-9]+)`

These definitions show a replacement operation that recalls two sub-expressions. Table 11.12 on page 126 shows the result of applying these sample definitions to some text.

Table 11.12 Remembering sub-expressions

Before replacement	\1 matches this text	\2 matches this text	After replacement
`#define var1 10;`	`var1`	`10`	`const int var1 = 10;`
`#define a 100;`	`a`	`100`	`const int a = 100;`

Comparing Files and Folders

The IDE can compare files or folder contents and graphically show you the differences between them. You can perform these tasks:

- Compare two files.
- Compare the contents of two folders.

You perform the comparison by specifying a *source* item and a *destination* item. You can apply or unapply the changes in the source item to the destination item.

Comparison Setup

You use the **Compare Files Setup** window to enter information about the files or folders that you want to compare. Figure 11.9 on page 127 shows the Compare Files Setup window. Table 11.13 on page 127 explains items in the window.

Figure 11.9 Compare Files Setup window

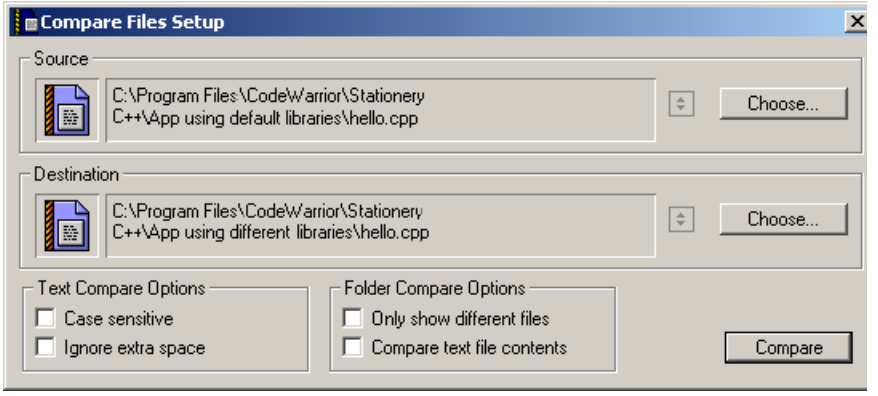


Table 11.13 Compare Files Setup window—items

Item	Explanation
Source box	Click the **Choose** button to specify the source file or folder for the comparison, or drag and drop a file or folder into the box. Click the selector to the left of the Choose button to specify a file in an open editor window.
Destination box	Click the **Choose** button to specify the destination file or folder for the comparison, or drag and drop a file or folder into the box. Click the selector to the left of the Choose button to specify a file in an open editor window.
Case sensitive checkbox	Check to consider text case during the compare operation. The comparison distinguishes between a capital letter and the same letter in lower case. Clear to disregard text case during the compare operation. The comparison does not distinguish between a capital letter and the same letter in lower case.
Ignore extra space checkbox	Check to consider extra spaces and tabs during the compare operation. The comparison distinguishes differences in the number of spaces and tabs in the compared files. Clear to disregard extra spaces and tabs during the compare operation. The comparison does not distinguish differences in the number of spaces and tabs in the compared files.

Table 11.13 Compare Files Setup window—items (*continued*)

Item	Explanation
Only show different files checkbox	Check to have the **Folder Compare Results** window show only the differences between the compared folders. The **Files in Both Folders** pane stays blank. Clear to have the **Folder Compare Results** window show all files from the compared folders as well as the differences between those folders. The **Files in Both Folders** pane shows the common files between the compared folders.
Compare text file contents checkbox	Check to identify differences in terms of a byte-by-byte comparison of the files. Clear to identify differences in terms of only the sizes and modification dates of the files.
Compare button	Click to compare the specified files or folders.

Choosing Files to Compare

Use the **Compare Files** command to specify two files that you want to compare.

1. Click **Search > Compare Files**.

   The **Compare Files Setup** window appears.

2. Specify a source file for the comparison.

   Click the **Choose** button in the **Source** box or drag and drop the file into the Source box. To specify a file in an open editor window, click the selector in the Source box.

3. Specify a destination file for the comparison.

   Click the **Choose** button in the **Destination** box or drag and drop the file into the Destination box. To specify a file in an open editor window, click the selector in the Destination box.

4. Configure the checkboxes in the **Text Compare Options** group.

   Check the **Case sensitive** checkbox to distinguish between a capital letter and the same letter in lower case. Check the **Ignore extra space** checkbox to disregard extra spaces or tabs in the files.

5. Click the **Compare** button.

   The IDE performs the file comparison. The **File Compare Results** window appears.

Choosing Folders to Compare

Follow these steps to specify two folders that you want to compare:

1. Click **Search > Compare Files**.

   The **Compare Files Setup** window appears.

2. Specify a source folder for the comparison.

   Click the **Choose** button in the **Source** box or drag and drop the folder into the Source box.

3. Specify a destination folder for the comparison.

   Click the **Choose** button in the **Destination** box or drag and drop the folder into the Destination box.

4. Configure the checkboxes in the **Text Compare Options** group.

   These options apply to the files inside the compared folders. Check the **Case sensitive** checkbox to distinguish between a capital letter and the same letter in lower case. Check the **Ignore extra space** checkbox to disregard extra spaces or tabs in the files.

5. Configure the checkboxes in the **Folder Compare Options** group.

   These options apply to the contents of the compared folders. Check the **Only show different files** checkbox to have the **Folder Compare Results** window show only the files that differ between the source folder and destination folder. Check this option to have the **Files in Both Folders** pane of the Folder Compare Results window stay blank.

   Check the **Compare text file contents** checkbox to have the IDE perform a content-based comparison of the text files in the compared folders. Check this option to have the Folder Compare Results window show differences in terms of file content instead of file sizes and modification dates.

6. Click the **Compare** button.

   The IDE performs the folder comparison. The **Folder Compare Results** window appears.

CAUTION The compare operation ignores folders matching the criteria that you specify in the **Shielded Folders** preference panel.

File Comparison

The IDE file-comparison feature identifies additions, changes, and deletions between two text files. In addition, this feature allows you to apply the differences in the source file to the destination file.

You can also use this feature to merge changes between two versions of the same text file. Specify one version of the text file as the source file and the other version of the text file as the destination file. Then you can apply changes from the source file to the destination file. The destination file becomes the merged file.

After you use the **Compare Files Setup** window to specify two files for comparison, click the **Compare** button. The **File Compare Results** window appears. This window shows the differences between the source file and destination file. You can apply or unapply those differences to the destination file.

The File Compare Results window shows file differences in the form of highlighted portions of text. The highlighting tracks with the text as you scroll through the compared files.

Figure 11.10 on page 130 shows the File Compare Results window. Table 11.14 on page 131 explains the items in the window.

Figure 11.10 File Compare Results window

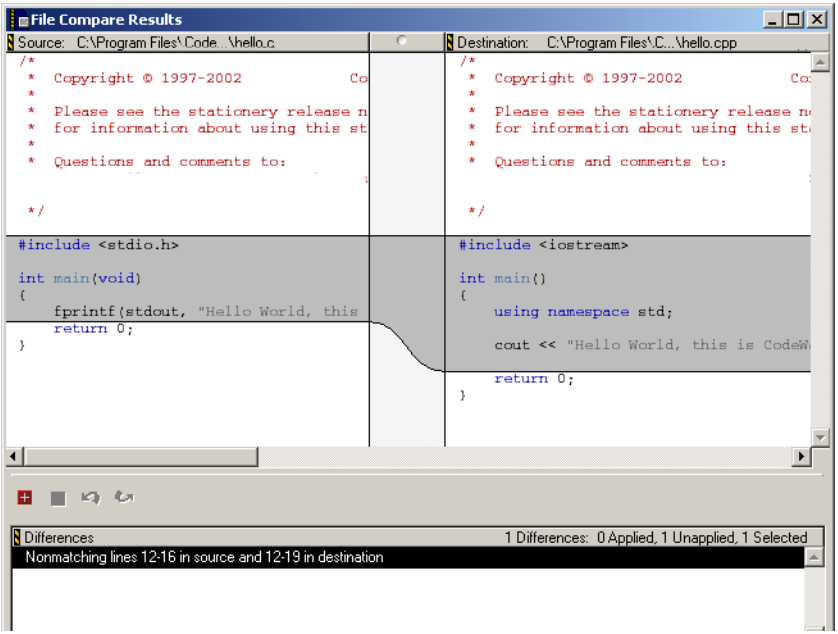

File Compare Results
Source: C:\Program Files\Code...\hello.c
Destination: C:\Program Files\C...\hello.cpp
Differences
1 Differences: 0 Applied, 1 Unapplied, 1 Selected
Nonmatching lines 12-16 in source and 12-19 in destination

Table 11.14 File Compare Results window—items

Item	Icon	Explanation
Source pane	N/A	Shows the contents of the source file. You cannot edit the contents of this pane.
Destination pane	N/A	Shows the contents of the destination file. You can edit the contents of this pane.
Pane resize bar		Drag to resize the Source and Destination panes.
Apply button		Click to apply the selected Differences pane items to the destination file.
Unapply button		Click to unapply the selected Differences pane items from the destination file.
Undo button		Click to undo your last text edit in the Destination pane.
Redo button		Click to redo your last text edit in the Destination pane.
Differences pane	N/A	Shows the differences between the Source pane and the Destination pane. Select an item to highlight it in the Source and Destination panes. Applied items appear in an italicized font

Applying File Differences

Use the **Apply Difference** command to apply the selected items in the **Differences** pane to the destination file.

NOTE You cannot alter the source file. You can change the destination file by applying differences from the source file or by editing the contents of the **Destination** pane.

1. Select the items in the Differences pane that you want to apply to the destination file.
2. Click **Search > Apply Difference** or click the Apply button in the **File Compare Results** window.

   The **Destination** pane updates to reflect the differences that you applied to the destination file. The applied items in the Differences pane change to an italicized font.

TIP Use the **Customize IDE Commands** window to assign a key binding to the **Apply Difference** command. This way, you can use the keyboard to apply differences.

Unapplying File Differences

Use the **Unapply Difference** command to unapply the selected items in the **Differences** pane from the destination file.

NOTE You cannot alter the source file. You can change the destination file by unapplying differences from the source file or by editing the contents of the **Destination** pane.

1. Select the items in the Differences pane that you want to unapply from the destination file.

   Items that you can unapply appear in an italicized font.
2. Click **Search > Unapply Difference** or click the Unapply button in the **File Compare Results** window.

   The **Destination** pane updates to reflect the differences that you unapplied from the destination file. The unapplied items in the Differences pane no longer appear in an italicized font.

TIP Use the **Customize IDE Commands** window to assign a key binding to the **Unapply Difference** command. This way, you can use the keyboard to unapply differences.

Folder Comparison

The IDE folder-comparison feature identifies the differences between the contents of two folders. It reports the files in both folders, the files only in the source folder, and the files only in the destination folder.

You can also use this feature to analyze the differences between two different releases of a folder of software. Specify one release of the software folder as the source folder and the other release of the software folder as the destination folder. Then you can analyze the differences between the source and destination folders.

After you use the **Compare Files Setup** window to specify two folders for comparison, click the **Compare** button. The **Folder Compare Results** window appears and shows the differences between the source folder and destination folder.

The Folder Compare Results window shows folder differences in the form of three panes. Italicized items in these panes indicate non-text files.

Figure 11.11 on page 133 shows the Folder Compare Results window. Table 11.15 on page 133 explains the items in the window.

Figure 11.11 Folder Compare Results window

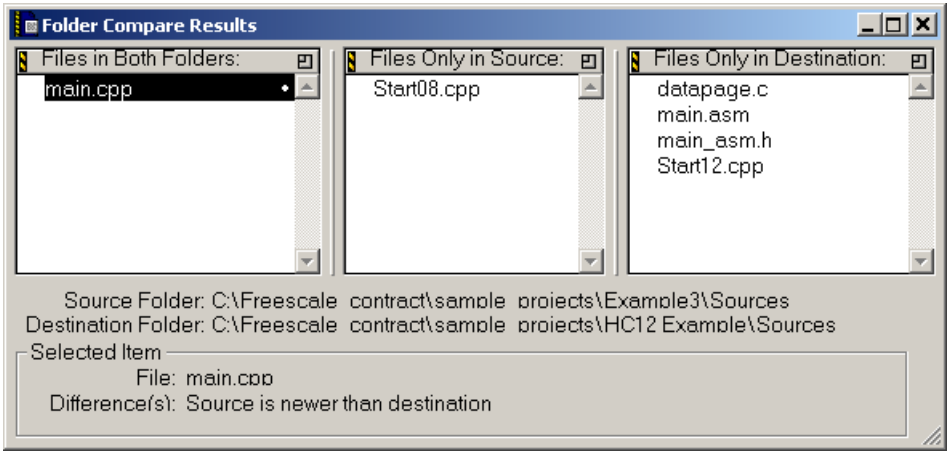


Table 11.15 Folder Compare Results window—items

Item	Icon	Explanation
Pane Expand box		Click to enlarge the pane to fill the window.
Pane Collapse box		Click to reduce an expanded pane to its original size.
Pane resize bar		Drag to resize the panes on either side of the bar.

Table 11.15 Folder Compare Results window—items (*continued*)

Item	Icon	Explanation
Files in Both Folders pane	N/A	Shows the items that are in both the source folder and the destination folder. A bullet next to an item indicates that the item content differs between the two folders.
Files Only in Source pane	N/A	Shows the items that are in the source folder only.
Files Only in Destination pane	N/A	Shows the items that are in the destination folder only.
Selected item group	N/A	Shows file and difference information for the selected item in the window panes.

Examining Items in the Folder Compare Results Window

You can use the **Folder Compare Results** window to open text files and compare file differences.

Double-click a text file to view and change its contents in an editor window.

A file whose contents differ between the source and destination folders has a bullet next to its name. Double click the file to open a **File Comparison Results** window. Use this window to examine the differences between the file contents.

IV

Browser

This section contains these chapters:

- Using the Browser on page 137
- Using Class Browser Windows on page 143
- Using Other Browser Windows on page 155
- Using Browser Wizards on page 163

12

Using the Browser

This chapter explains how to work with the browser in the CodeWarrior™ IDE. Use the browser to perform these tasks:

- Generate a browser database—the browser stores collected symbol information in a browser database for the project. You can generate browser data from the compiler or the language parser.
- Collect symbol information—symbols include functions, variables, and objects. Enable the browser to collect information about the symbols in a project.

Read this chapter to learn more about typical tasks for working with the browser.

This chapter contains these sections:

- "Browser Database" on page 137
- "Browser Symbols" on page 140

Browser Database

The browser database contains information about symbols in a program, which include (depending on program language) global variables, functions, classes, and type declarations, among others.

Some IDE windows require that the project contain a browser database. For example, the **Class Hierarchy** window only displays information for a project that contains a browser database. This section explains how to configure a project to generate its browser database.

NOTE Generating a browser database increases the project's size. To minimize the project's size, generate the browser database only for targets you frequently use.

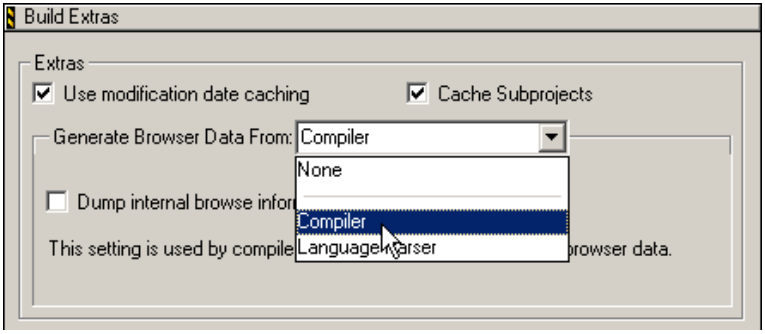
Browser Data

Browser data contains symbolic and relationship information about the project code. The browser uses this data to access the code information.

Use the **Generate Browser Data From** menu (Figure 12.1 on page 138) in the **Build Extras** target settings panel to enable and disable browser data generation. This drop-down menu provides these options, which determine how the IDE generates browser data:

- **None**—The IDE does not generate browser data. Use **None** to *disable* browser data. Select None to generate faster compiles (with no browser features).
- **Compiler**—The Compiler generates the browser data. While it compiles more slowly, the compiler generates the most accurate browser data.
- **Language Parser**—The Code Completion plug-in associated with the project's programming language generates the browser data.

Figure 12.1 Generate Browser Data From menu



Generating Browser Data

You can select an option in the **Generate Browser Data From** drop-down menu to establish what the IDE uses to generate browser data for a project file.

To generate browser data, follow these steps:

1. Choose **Edit > *Target* Settings**.
2. From the **Target Settings Panels** list, select **Build Extras**.
3. Choose **Compiler** or **Language Parser** from the **Generate Browser Data From** menu.

NOTE Some compilers do not generate browser data.

a. **Compiler**—The compiler generates browser data and the following associated item appears.

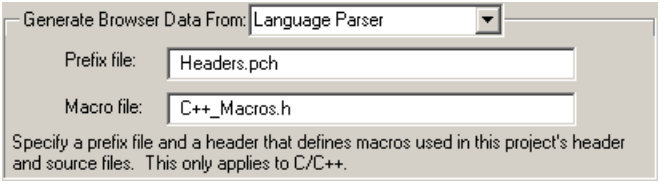
   If you enable **Dump internal browse information after compile**, the generated browser data appears in a log window after you compile a file.

b. **Language Parser**—The **Code Completion** plug-in associated with the project's programming language generates the browser data. Browser data and the #include pop-up window update as you edit.

NOTE Choose Language Parser for C/C++ code completion.

The **Prefix** and **Macro** files (Figure 12.2 on page 139) are applicable to C/C++ Code Completion.

Figure 12.2 Generate browser data from language parser


Generate Browser Data From:
Language Parser
Prefix file:
Headers.pch
Macro file:
C++_Macros.h
Specify a prefix file and a header that defines macros used in this project's header and source files. This only applies to C/C++.

- **Prefix** file—Similar to that used in the **C/C++ Language Settings** panel, the Prefix file contains header files that help the C/C++ Code Completion plug-in parse code. The Prefix file should only include text files (not pre-compiled header files).
- **Macro** file—Contains C/C++ macro files that help the Code Completion plug-in resolve any `#ifdefs` found in the source code or in the header files.

4. If you selected **Compiler**, choose **Project > Bring Up To Date** or **Make**.

   The IDE generates browser data for the project.

   If you selected **Language Parser**, the IDE generates browser data in the background.

Disabling Browser Data

Select **None** to disable browser data and stop the IDE from generating browser information for the project.

1. Choose **Edit > Target Settings**.
2. Select **Build Extras** from the **Target Settings Panels** list.
3. In the **Generate Browser Data From** drop-down menu, select **None**.
4. Click **Save**.
5. Choose **Project > Make**.

The IDE stops generating browser information.

Browser Symbols

Navigate browser symbols to open browser views, find symbol definitions, and examine inheritance.

You can navigate browser symbols in these ways:

- Use the Browser contextual menu to open various browser windows for a selected symbol.
- Double-click a symbol name in the Class Browser window to open the file that contains the declaration of that symbol.
- Use the class hierarchy windows to determine the ancestors or descendants of a selected symbol.

Browser Contextual Menu

Use the IDE's browser contextual menu to enhance source-code editing in the IDE. Use this menu to streamline text entry in editor windows. You can enter the first few letters of a function name, then use the browser contextual menu to complete the entry.

Using the Browser Contextual Menu

1. Open the browser contextual menu, as explained in Table 12.1 on page 140.

Table 12.1 Opening a browser contextual menu

On this host...	Do this...
Windows	Right-click a symbol name.

2. Select a command from the contextual menu.

Identifying Symbols in the Browser Database

As a shortcut, you can use browser coloring to help recognize if a symbol resides in the browser database. When you activate a browser, you can see browser-database symbols because they appear in the editor and browser windows according to the colors you select.

TIP The default color setting is identical for all eight types of browser-database symbols. You can choose a different color for each symbol type.

To change the browser symbol colors the editor uses, follow these steps:

1. Choose **Edit > Preferences.**
2. Select the **Text Colors** panel from the **IDE Preference Panels** list.
3. Select the **Activate Syntax Coloring** option.
4. Select the **Activate Browser Coloring** option.
5. Click the color swatch next to the symbol name to set that symbol's color.
6. Click **Save**.

13

Using Class Browser Windows

This chapter explains how to work with the Class Browser windows in the CodeWarrior™ IDE. Use the Class Browser to perform these tasks:

- View browser data—the class browser collects information about the elements of a computer program. Such elements include functions, variables, and classes. The class browser displays these elements in organized lists.
- Show data relationships—the class browser shows the relationships between classes, data members, and methods. The class browser also updates the display to reflect changes in class scope.

Read this chapter to learn more about typical tasks for working with Class Browser windows.

This chapter contains these sections:

- "Class Browser window" on page 143
- "Classes pane" on page 149
- "Member Functions pane" on page 151
- "Data Members pane" on page 151
- "Source pane" on page 152
- "Status Area" on page 153

Class Browser window

Use the Class Browser window to view information about the elements of a computer program. This section explains how to use the Class Browser window to view browser data.

Figure 13.1 on page 144 shows the Class Browser window. Table 13.1 on page 144 explains the items in the window. Table 13.2 on page 146 explains the options in the Browser Access Filters list box.

Figure 13.1 Class Browser window

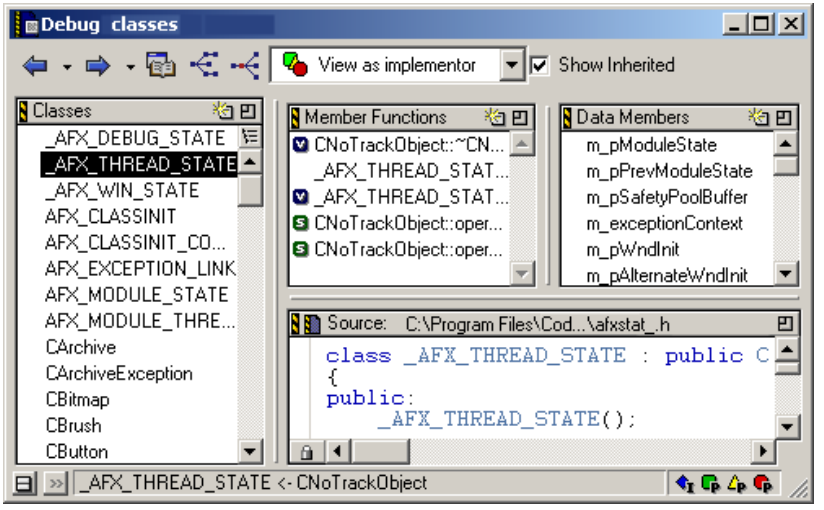


Table 13.1 Class Browser window—items

Item	Icon	Explanation
Go Back button		Click to return to the preceding browser view.
Go Forward button		Click to move to the succeeding browser view.
Browser Contents button		Click to open the Browser Contents window.
Class Hierarchy button		Click to open the Multi-class Hierarchy window.
Single Class Hierarchy Window button		Click to open the Single-class Hierarchy window for the selected class.
Browser Access Filters list box		Select filters for displaying items in class-browser panes.

Table 13.1 Class Browser window—items (*continued*)

Item	Icon	Explanation
Show Inherited		Select to show inherited items in the Member Functions pane on page 151 and Data Members pane on page 151. Clear to hide inherited items from these panes.
Classes pane on page 149		Lists all classes in the project browser database.
Member Functions pane on page 151		Lists all member functions defined in the currently selected class.
Data Members pane on page 151		Lists all data members defined in the selected class.
Source pane on page 152		Displays source code for the currently selected item.
Status Area on page 153		Displays various status messages and other information.
Display toggle buttons	Alphabetical Hierarchical	Toggles the Classes display between alphabetical and hierarchical listings.
New Item button		Opens wizards to create new items (e.g., classes, data members, member functions).
Pane Expand box		Expands the pane to the width of the full window.
Pane Collapse Box		Collapses the pane to its original size.
Classes Pane button		Lists all classes in the project browser database.

Table 13.1 Class Browser window—items (*continued*)

Item	Icon	Explanation
Class Declaration button		Opens a window that shows declarations for all classes in the project.
Open File button		Opens the current source file in a new editor window.
VCS list pop-up		With a version control system enabled, choose the version-control command to execute on the displayed source file.

Table 13.2 Browser access filters

Filter	Icon	Show items with this access:		
		Public	Private	Protected
View as implementor		•	•	•
View as subclass		•		•
View as user		•		
Show public		•		
Show protected				•
Show private			•	

Viewing Class Data from Browser Contents Window

To view class data for a project in the **Browser Contents** window, follow these steps:

1. Open the **Browser Contents** window, as explained in Table 13.3 on page 147.

Table 13.3 Opening the Browser Contents window

On this host…	Do this…
Windows	Select **View > Browser Contents**.

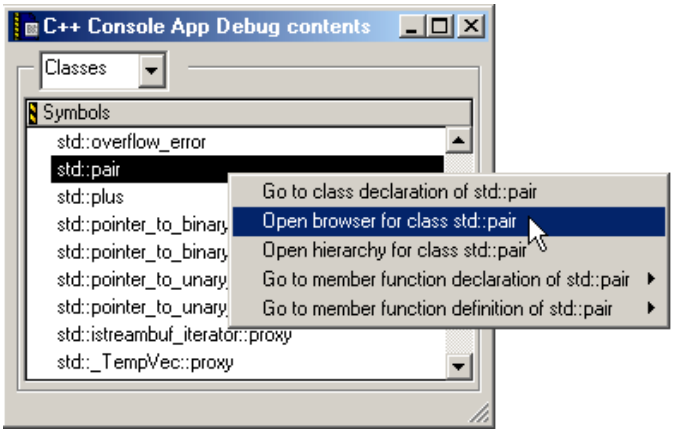
2. Select a class in the Browser Contents window.
3. Open a contextual menu for the selected class, as explained in Table 13.4 on page 147.

Table 13.4 Opening a contextual menu for the selected class

On this host…	Do this…
Windows	Right-click the selected class.

A contextual menu like the one shown in Figure 13.2 on page 147 appears.

Figure 13.2 Browser Contents window—contextual menu



4. Select **Open browser for class *classname*** from the contextual menu.

   The ***classname*** is the name of the class that you selected.

   A **Class Browser** window appears.

Viewing Class Data from Hierarchy Windows

To view class data from a hierarchy window, follow these steps:

1. Open a **Single-Hierarchy** or **Multi-Class Hierarchy** window:

   a. Click the **Single Class Hierarchy Window** button in the browser toolbar, or

   b. Click the **Class Hierarchy** button in the browser toolbar.

2. In the Single- or Multi-Class Hierarchy window, double-click a class name.

A **Class Browser** window appears.

Expanding Browser Panes

Click the **Pane Expand** box (just above the scroll bar in the upper right-hand corner of the pane) to expand the Classes, Function Members, Data Members, or Source panes in a **Browser** window.

1. Click the **Pane Expand** box to expand a pane.

   This pane expands to fill the **Browser** window.

2. Use the enlarged pane to view data.

Alternately, you can use the resize bar between the panes to enlarge each pane.

1. Rest the cursor over the resize bar.

   The cursor icon changes to this:

2. Hold down the mouse button.
3. Drag the resize bar to enlarge or shrink the pane.

Collapsing Browser Panes

Click the **Pane Collapse** box (just above the scroll bar in the upper right-hand corner of the pane) to collapse the Classes, Function Members, Data Members, or Source panes in a **Browser** window.

1. Click the **Pane Collapse** box to collapse a pane.

   The chosen pane collapses to its original size.

2. You can now view other panes in a Browser window.

Alternately, you can use the resize bar between the panes to collapse each pane.

1. Rest the cursor over the resize bar.

   The cursor icon changes to this:
2. Hold down the mouse button.
3. Drag the resize bar to collapse the pane.

Classes pane

Use the **Classes** pane to perform these tasks:

- Create a new class
- Toggle viewing of classes
- Sort classes

Figure 13.1 on page 144 shows the Classes pane. Table 13.5 on page 149 explains the items in
the pane.

Table 13.5 Classes pane—items

Item	Icon	Explanation
New Item		Click to create a new class using the New Class Wizard.
Sort Alphabetical		Click to sort the Classes list in alphabetical order.
Sort Hierarchical		Click to sort the Classes list in hierarchical order.

Creating a New Class

Use the **New Class** wizard to specify the name, declaration, and location for a new class. Click **Finish** in any screen to apply default values to any remaining parameters and complete the process. The New Class wizard creates the files that define the class.

1. From the Classes pane, click the **New Item** button .
2. Enter the **Name** and **Location** in the New Class window.
3. To create a more complex class, click **Next** (optional).

   Follow the on-screen directions to further define the class.
4. Click **Finish** to complete the New Class process.

Showing the Classes Pane

Use the **Show Classes** button to expand the Classes pane.

1. Click the **Show Classes** button:
2. The Classes pane appears in the **Class Browser** window.

Hiding the Classes Pane

Use the **Hide Classes** button to collapse the Classes pane.

1. Click the **Hide Classes** button:
2. The Classes pane disappears from the **Class Browser** window.

Sorting the Classes List

Use the **Sort Alphabetical** and **Sort Hierarchical** commands to specify the sort order of classes in the Classes pane. The displayed icon always represents the alternate sort order. For example, when the Classes list appears in alphabetical order, the Sort Hierarchical icon is visible.

- Click the **Sort Alphabetical** icon .

  The IDE sorts the Classes list in alphabetical order.
- Click the **Sort Hierarchical** icon .

  The IDE sorts the Classes list in hierarchical order.

Member Functions pane

Use the **Member Functions** pane to perform these tasks:

- Create a new member function
- Determine the inheritance type of a member function

Table 13.6 Member Function and Data Member identifier icons

Meaning	Icon	The member is…
static		a static member
virtual		a virtual function that can be overridden, or an override of an inherited function
pure virtual or abstract		a member function that must be overridden in a subclass to create instances of that subclass

Creating a New Member Function

Use the **New Member Function** wizard to specify the name, return type, and parameters for a new member function. Click **Finish** in any screen to apply default values to any remaining parameters and complete the process.

1. Click the **New Item** button in the **Member Functions** pane.
2. Enter the **Member Function Declarations** in the **New Member Function** window.
3. Click **Next**.
4. Enter **Member function file locations** and **Include Files** information.
5. Click **Finish**.
6. Review the settings summary, then click **Generate**.

   The IDE adds the new member function to the class declaration.

Data Members pane

Use the **Data Members** pane to create a new data member. This section explains how to create the data member.

Click the New Item button in the Data Members pane to open the New Data Member wizard. See Table 13.6 on page 151 for a complete list of identifier icons that appear in the Data Members pane.

Creating a New Data Member

Use the **New Data Member** wizard to specify the name, type, and initializer for the new data member. Specify other options to further refine the data member. Click **Finish** in any screen to apply default values to any remaining parameters and complete the process.

1. From the **Data Members** pane, click the **New Item** button:
2. Enter the **Data Member Declarations** in the **New Data Member** window.
3. Click **Next**.
4. Enter Data Member file locations and `#include files` information.
5. Click **Finish**.
6. Review the settings summary, then click **Generate**.

   The IDE adds the new data member to the class declaration.

Source pane

Use the **Source** pane to view the source code that corresponds to the selected class, member function, or data member. This section explains the items in the **Source** pane.

Figure 13.1 on page 144 shows the Source pane. Table 13.7 on page 152 explains the items in
the pane.

For information on editing source code, see "Editing Source Code" on page 81.

Table 13.7 Source pane—items

Item	Icon	Explanation
Open File		Click to open the current source file in a new editor window.
VCS menu		Enable a version-control system in order to activate this menu. Use this menu to select and execute a version-control command on the source file.

Status Area

Use the status area to perform these tasks:

- Toggle viewing of the **Classes** pane
- View class declarations
- View classes according to public, private, or protected access

Figure 13.1 on page 144 shows the status area. Table 13.8 on page 153 explains items in the status area.

Table 13.8 Status area—items

Item	Icon	Explanation
Show Classes Pane		Click to display the Classes pane in the Class Browser window.
Hide Classes Pane		Click to hide the Classes pane in the Class Browser window.
Class Declaration		Click to show the declaration of the current class.
Access Filter Display		Displays the access state of the current class.

14

Using Other Browser Windows

This chapter explains how to work with the Class Hierarchy windows in the CodeWarrior™ IDE. Use Class Hierarchy windows to perform these tasks:

- View hierarchical browser data—the class hierarchy window shows a graphical representation of hierarchical structure. Object-oriented languages, such as C++ and Java, allow hierarchical relationships between classes.
- Analyze inheritance structure—the class hierarchy window shows the inheritance structure of classes. This structure reveals the data-handling capabilities of a particular class.

Read this chapter to learn more about typical tasks for working with Class Hierarchy windows.

This chapter contains these sections:

- on page 158“Multiple-Class Hierarchy Window” on page 155
- “Single-Class Hierarchy Window” on page 158
- “Browser Contents window” on page 159
- “Symbols window” on page 160

Multiple-Class Hierarchy Window

Use the Multi-Class Hierarchy window to visually examine the structure of every class in the browser database. Each class name appears in a box, and lines connect boxes to indicate related classes. The left-most box is the base class, and subclasses appear to the right.

Figure 14.1 on page 156 shows the Multi-Class Hierarchy window. Table 14.1 on page 156 explains the items in the window.

Figure 14.1 Multi-Class Hierarchy window

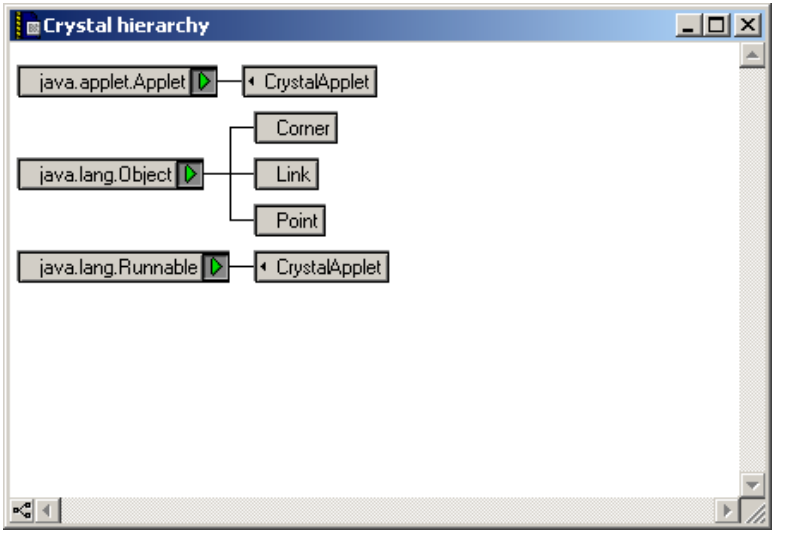


Table 14.1 Multi-class hierarchy window—items

Item	Icon	Explanation
Hierarchy Control		Click to expand or collapse the subclasses displayed for a specific class.
Ancestor menu		Click and hold on class or subclass box to display a menu. Select a class from menu to display that class.
Line button		Click to toggle the lines that connect classes between diagonal and straight lines.

Viewing Browser Data by Inheritance

Use a **Hierarchy** window to view data in graphical form and better understand class relationships. Use the expand and collapse arrows to enlarge or shrink the class views.

1. Activate the browser.
2. Update the browser database by using the **Bring Up To Date**, **Make**, **Run**, or **Debug** command.
3. Open a graphical **Hierarchy** window, as explained in Table 14.2 on page 157.

Table 14.2 Opening the Hierarchy window

On this host…	Do this…
Windows	Select **View > Class Hierarchy**

Printing Class Hierarchies

To print the contents of a **Class Hierarchy** window, save an image of the window contents, then print the image file from a graphics-processing application. The IDE saves the image in the EMF (Enhanced Metafile) graphics-file format.

1. Open the **Class Hierarchy** window.
2. Choose **File > Save a Copy As**.
3. Save the image to a file.
4. Open the image file in an graphics-processing application.
5. Print the image file.

The graphics-processing application prints the image of the class hierarchy.

Changing Line Views in a Hierarchical Window

Use the **Diagonal Line** and **Straight Line** commands to change the appearance of the connecting lines between classes and subclasses in a hierarchical window display.

- Click the **Diagonal Line** icon .

  The Hierarchical window display updates to use diagonal lines.

- Click the **Straight Line** icon .

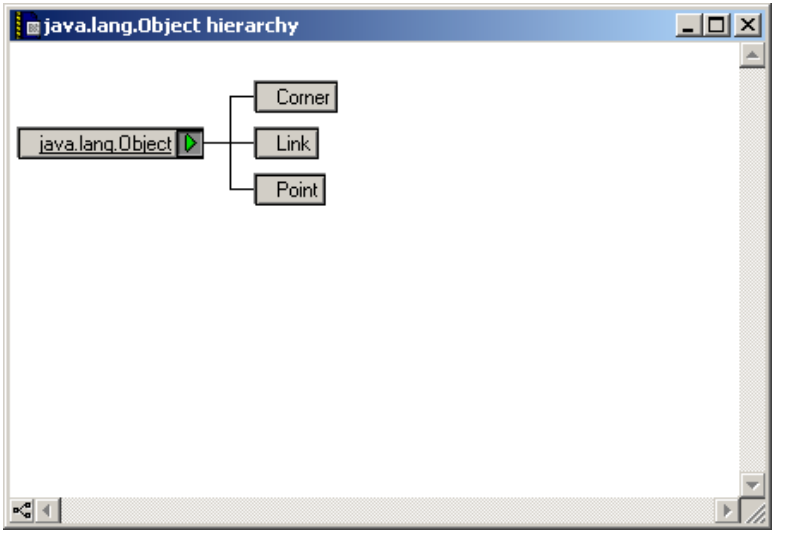
  The Hierarchical window display updates to use straight lines.

Single-Class Hierarchy Window

Use the Single-Class Hierarchy window to examine the structure of a single class in the browser database. The Single-Class Hierarchy window operates identically to the Multi-Class Hierarchy window, but restricts the display to a single class.

The Single-Class Hierarchy window contains the same components as the Multi-Class Hierarchy window.

Figure 14.2 Single-Class Hierarchy window



Opening a Single-Class Hierarchical window

Use one of these methods to open a Single-Class Hierarchical window:

- Click the **Show Single-Class Hierarchy** icon in a Browser toolbar.
- Use the Browser Contextual menu in one of these windows:
  - New Class Browser window
  - Browser Contents window
  - Multi-Class Hierarchical window

  A Single-Class Hierarchical window appears

Browser Contents window

Use the Browser Contents window to view browser data sorted by category into an alphabetical list. This section explains how to use the Browser Contents window to view browser data.

Figure 14.3 on page 159 shows the Browser Contents window. Table 14.3 on page 159 explains the items in the window.

Figure 14.3 Browser Contents window

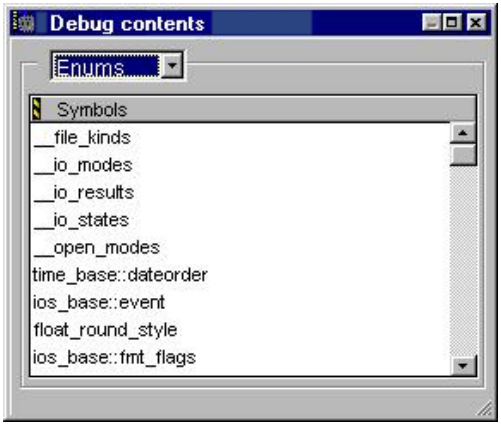


Table 14.3 Browser Contents window—items

Item	Icon	Explanation
Symbols list box		Select the type of symbol to display in the Symbols list.
Symbols list		Double-click a symbol name to display the source file in a new editor window that defines the symbol.

Viewing Browser Data by Contents

Use the **Browser Contents** window to display symbol information stored in the browser database, listed in alphabetical order. You can choose from these categories:

- classes
- constants
- enumerations
- functions
- global variables
- macros
- function templates
- type definitions

1. Activate the browser.
2. Use the **Bring Up To Date**, **Make**, **Run**, or **Debug** command to update the browser database.
3. Select **View > Browser Contents to** open the Browser Contents window.
4. Select a category from the **Category** list pop-up.

   The symbol information for the selected category appears in alphabetical order in the **Symbols** list.

Symbols window

The Symbols window displays information from project browser databases. With the browser enabled, the IDE generates a browser database for a project during the build process.

The Symbols window displays symbols that have multiple definitions in the browser database. For example, the window displays information about multiple versions of overridden functions in object-oriented code.

Figure 14.4 on page 161 shows the Symbols window.

Figure 14.4 Symbols window

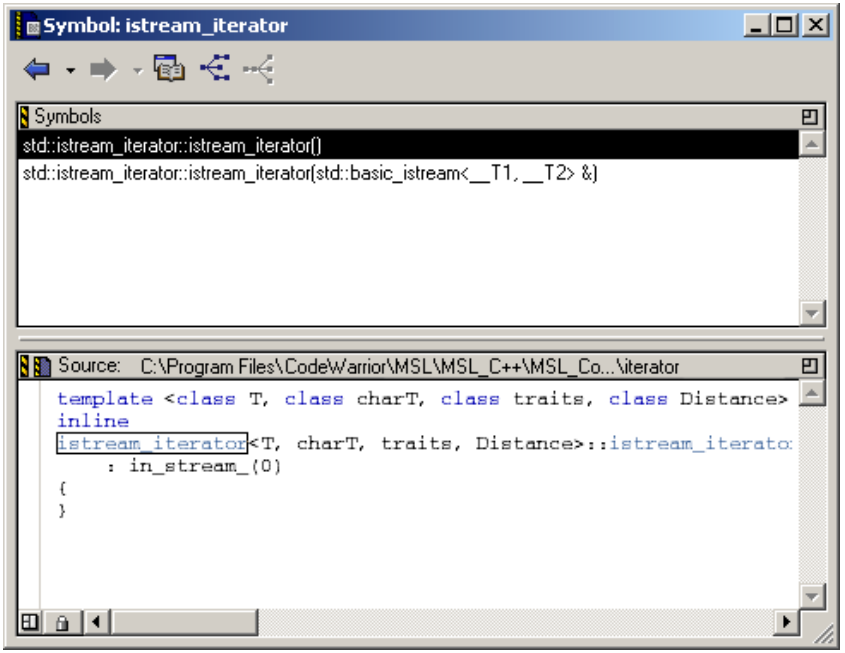


Table 14.4 Symbols window—items

Item	Explanation
Symbols toolbar on page 162	Provides one-click access to common browser commands and class-filtering commands.
Symbols pane on page 162	Displays a list of all symbols with multiple declarations.
Source pane on page 162	Displays the source code for the currently selected item.

Opening the Symbols Window

Use the **Symbols** window to list all implementations, whether overridden or not, of any symbol that has multiple definitions. You can access the Symbols window by using a contextual menu.

1. Right-click the symbol name to open a contextual menu.
2. Select **Find all implementations of** from the contextual menu that appears.
3. The Symbols window opens.

Symbols toolbar

Most of the Symbol toolbar items are identical to those in the Class Browser window on page 143.

Symbols pane

The **Symbols** pane lists symbols with multiple definitions in the browser database. Select a symbol from the list to view its definition in the **Source** pane.

Source pane

The **Source** pane used in the Symbols window is identical to the one used by the Class Browser window on page 143. See "Source pane" on page 152 for more details.

15

Using Browser Wizards

When you create a new class, member function, or data member in the IDE, you use browser wizards. These wizards provide the steps to help you complete the process.

This chapter provides information on these wizards:

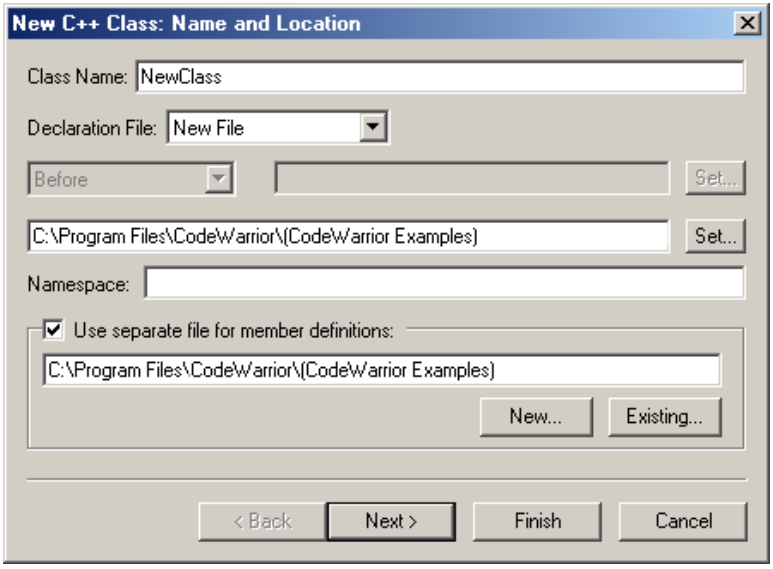
- "The New Class Wizard" on page 163
- "The New Member Function Wizard" on page 168
- "The New Data Member Wizard" on page 169

NOTE Most wizard pages contain default settings. To accept all current settings in the wizard, click **Finish** in any screen. The wizard displays a summary of all current settings for the new project. Click **Generate** to accept the current settings and create the new item, or click **Cancel** to return to the wizard to modify settings.

The New Class Wizard

Use the **New Class** wizard to specify the name, declaration, and location for a new class. Click **Finish** in any screen to apply default values to remaining parameters to complete the process. The New Class wizard creates the files that define the class.

Figure 15.1 New Class wizard—Name and Location



Using the New Class Wizard

To use the New Class Wizard, follow these steps:

1. Select **View > Class Browser to** open the **Class Browser** window.
2. Select **Browser > New Class**.

NOTE You can also click the New Item icon in the Class Browser window to create a new class.

3. In the **New C++ Class** wizard, enter **Name and Location** information:

a. **Class Name**—Enter a name for the class in this field.

b. **Declaration File**—This menu lets you specify whether the file is a **New File**, which is a new declaration file, or **Relative to class**, which is a declaration that depends on an existing file in the project.

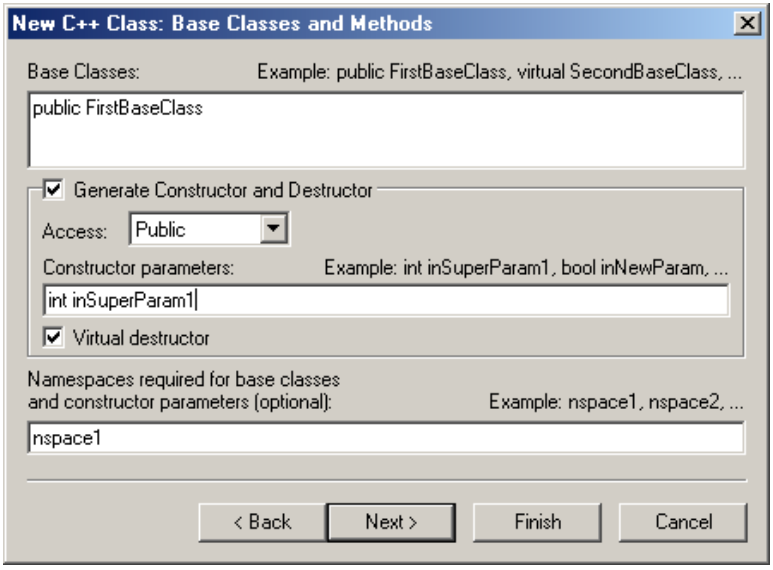
   If you choose the **New File** option, type in the path where you want to save the file. Alternatively, click **Set** next to the field to choose the path in which to save the file.

   If you choose the **Relative to class** option, select **Before** or **After** to establish the order of the new class in relation to existing classes. In the field next to the Before and After drop-down selection, type the name of the class you want to relate to the new class. Alternatively, click **Set** next to this field, type the name of a class in the window that opens, and then click **Select**.

NOTE If you want to use a separate file to define the members of the new class, type the path to the separate file in the field below the **Use separate file for member definitions** checkbox. Alternatively, choose **Existing** to use a standard dialog box to select the file. To create a new, separate file, choose **New** and save the new file to a location on your hard disk.

4. Click **Next**.

Figure 15.2 New Class wizard—Base Class and Methods



5. Enter **Base Classes and Methods** information.

   Enter a list of base classes for the new class:

   a. **Access**—From this drop-down menu, choose an access type, **Public**, **Protected**, or **Private**, for the constructor and destructor.

   b. **Constructor parameters**—Enter a list of parameters for the constructor.

   c. **Virtual destructor**—Click this checkbox to create a virtual destructor for the new class.

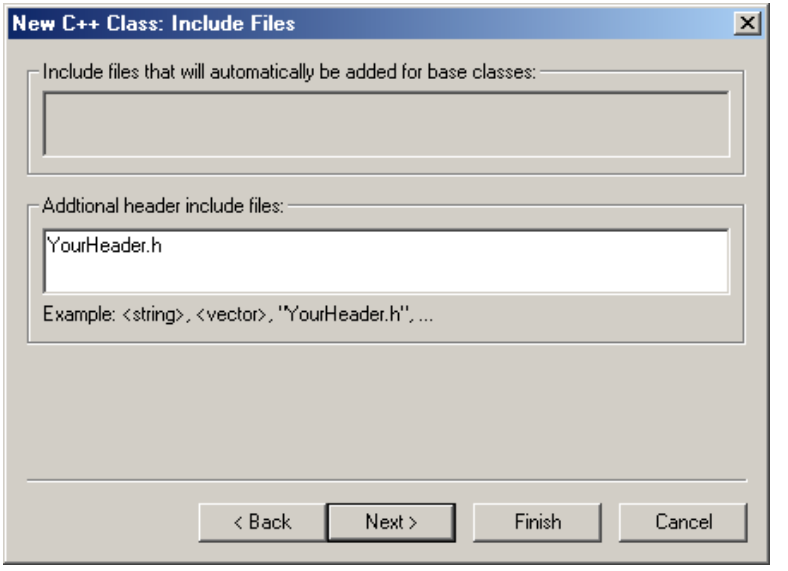
   d. As an option, you can enter the required namespaces for the base classes and the constructor parameters in the field labeled **Namespaces required for the base classes and constructor parameters**.

      Or,

      If needed, you can specify the base classes and constructor parameters.

6. Click **Next**.

Figure 15.3 New Class wizard—Include Files



7. Enter **Include Files** information.

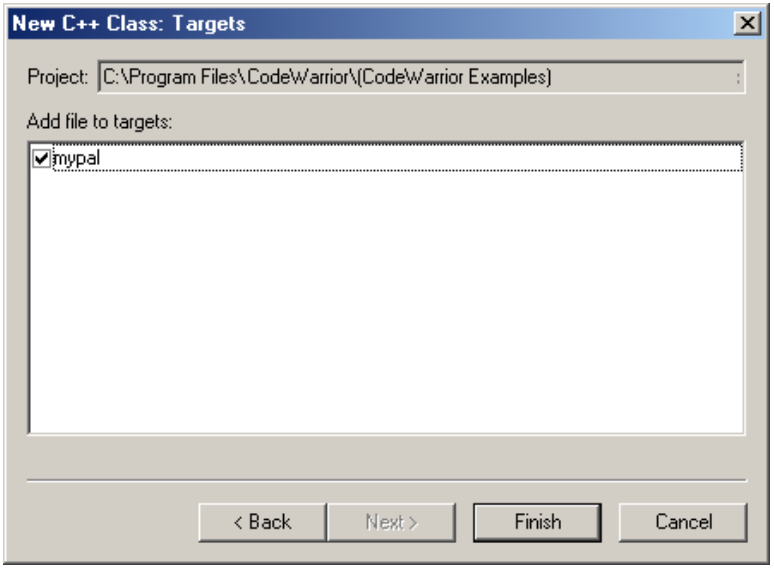
   Specify additional header #include files for the new class:

a. **Include files that will automatically be added for base classes**—This field shows you a list of #include files that the IDE automatically adds to find the base classes.

b. **Additional header include files**—Enter a list of other include files for the new class in addition to those in the previous field. Separate each file in the list with a comma.

8. Click **Next**.

Figure 15.4 New Class wizard—Targets



9. Enter **Targets** information:

   Select the checkbox next to the build target's name in the list to add the class files to a specific build target.

10. Click **Finish**.

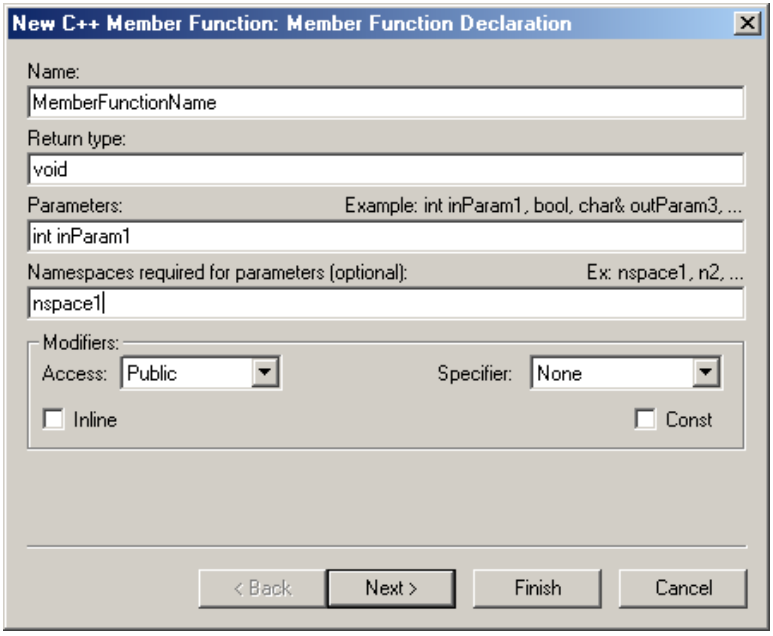
    Review the settings summary.

11. Click **Generate**.

The New Member Function Wizard

Use the **New Member Function** wizard to specify the name, return type, and parameters for a new member function. Enter additional information in the wizard fields to refine the function definition.

Figure 15.5 New Member Function wizard



Using the New Member Function Wizard

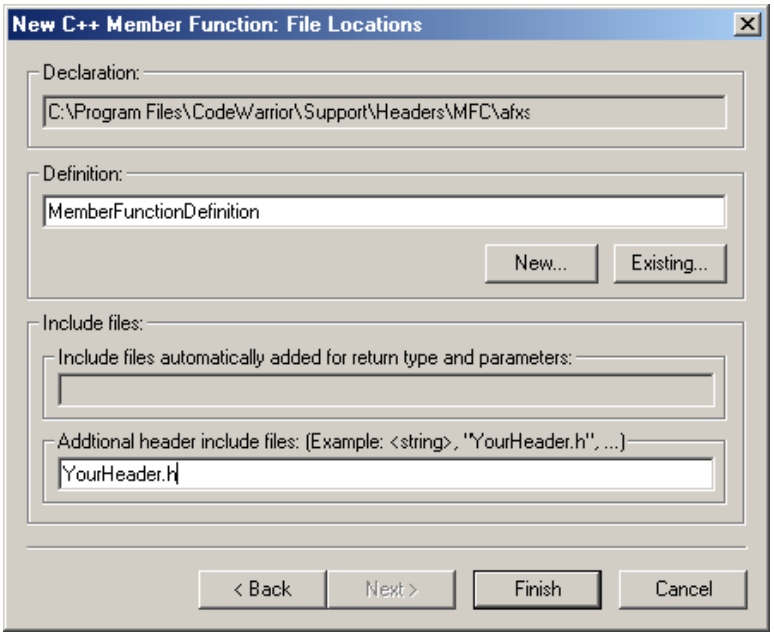
To use the New Member Function wizard, follow these steps:

1. Select **View > Class Browser** to open the **Class Browser** window.
2. Select **Browser > New Member Function**.
3. In the **New C++ Member Function** window, enter the **Member Function Declaration**.
   a. **Name**—Type a name for the member function.
   b. **Return Type**—Enter an appropriate function return type.
   c. **Parameters**—Type a list of function parameters.

d. **Namespaces required for parameters (optional)**—Type a list of namespaces required for parameters.

4. Click **Next**.

Figure 15.6 New Member Function wizard—File Locations

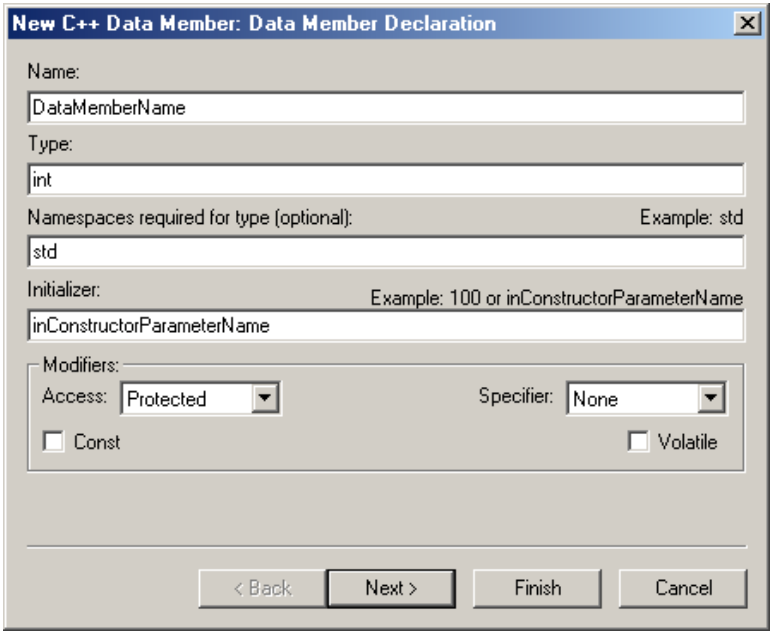


5. Enter **Member Function File Locations** and **Include Files** information.
6. Click **Finish**.
7. Review settings summary, then click **Generate**.

The New Data Member Wizard

Use the **New Data Member** wizard to define the new data-member declaration, and to specify new data member file locations. The wizard offers additional options to further define the function.

Figure 15.7 New Data Member wizard



Using the New Data Member Wizard

To use the New Data Member wizard, follow these steps:

1. Select **View > Class Browser** to open the **Class Browser** window.
2. Select **Browser > New Data Member**.
3. In the **New C++ Data Member** window, enter the **Name, Type, Namespaces required for type (optional), Initializer, and Modifiers.**
   a. **Name**—Type a name for the data member in this field.
   b. **Type**—Enter an appropriate data-member type in this field.
   c. **Namespaces required for type (optional)—**(Optional) Enter a list of namespaces required for the type in the **Type** field. A sample namespace is `std`.
   d. **Initializer**—(Optional) Enter an initial value for the data member in this field. Sample initializers are `100` and `inConstructorParameterName`.
   e. **Modifiers**—Select the access level and type for the new data member.
4. Click **Next**.

5. Specify **Data Member File Locations**.

   This section lets you specify file locations associated with the new member functions, including these fields: **Declaration**, **Definition**, **Include file automatically added for member type**, and **Additional header include files**.

   a. **Declaration**—This field shows you the **data member's declaration file location.**

   b. **Definition**—This field is not available in this wizard.

   c. **Include file automatically added for member type**—This field indicates whether an include file will be automatically added for the data-member type.

   d. **Additional header include files—**Enter in this field a list of other include files for the new data member, in addition to the file listed in the previous field. Example files are `<string>` and `YourHeader.h`.

6. Click **Finish**.

7. Review settings summary, then click **Generate**.

V

Compilers and Linkers

This section contains these chapters:

- Compilers on page 175
- Linkers on page 179

16

Compilers

This chapter explains how to work with compilers in the CodeWarrior™ IDE. The IDE uses compilers to complete these tasks:

- Generate object code—the compiler translates source code into object code. Sample source code includes C++ files and Java files. Object code represents the same source instructions in a language that the computer directly understands.
- Flag syntax errors—the compiler highlights source code that generates syntax errors. Syntax errors result from failing to follow valid structure in a programming language. In C++, a common syntax error is forgetting to end a statement with a semicolon.

Read this chapter to learn more about typical tasks for working with compilers.

This chapter contains these sections:

- Choosing a Compiler on page 175
- Compiling Projects on page 175

Choosing a Compiler

Choose a compiler to determine how the IDE interprets source code. The IDE uses a *plug-in* compiler architecture. This architecture provides these features:

- Modularity—the IDE associates a specific compiler plug-in with a particular programming language or environment. For example, a compiler plug-in exists for C++ source code, and another compiler plug-in exists for Java source code.
- Flexibility—as new programming languages develop, the IDE can use new compiler plug-ins.

The IDE associates common filename extensions with various plug-in compilers. For example, most Java files have the filename extension `.java`. The IDE associates these files with the Java compiler. The **File Mappings** panel provides control over such associations.

Compiling Projects

Compile projects to process the source files that comprise a program and generate object code. The compiler flags syntax errors in the source files.

Use these tasks to compile projects:

- Compile source files.
- Set the build order or link order.
- Update a project or its files.
- Create an executable file from a project.
- Run an application created from the project.
- Remove object code.

This section explains how to perform each task.

Compiling Source Files

Use the **Compile** commands to compile source files into binary files. The IDE can compile a single file, multiple files, or all files in an open project.

1. Enable the Project window that contains the desired files to be compiled.
2. Select one or more files.
3. Choose **Project > Compile**.

   The IDE compiles the selected files.

NOTE The **Project** menu contains most commands for compiling and linking projects. However, depending on the project type, some commands might be disabled or renamed.

Setting the Build and Link Order of Files

Use the **Link Order** view in the Project window to specify the order in which the compiler and linker process files. Establishing the proper link order prevents link errors caused by file dependencies. The **Link Order** view is sometimes called the **Segments** view or **Overlays** view, depending on the target.

1. Click the **Link Order** tab in a Project window.
2. Click and drag files into the desired link order.

The IDE changes the link order. The build begins at the top of the link order, processes each file, and concludes at the bottom of the link order.

NOTE The IDE uses the new link order during subsequent **Update**, **Make**, **Run**, and **Debug** operations.

Updating Projects

Use the **Bring Up To Date** command to compile, but not link, the newly added, modified, and touched files in a project. Unlike the **Make** and **Run** commands, the **Bring Up To Date** command does not produce a binary file.

1. Select the project to update.
2. Choose **Project > Bring Up To Date**.

The IDE compiles all uncompiled project files.

Making Executable Files

Use the **Make** command to compile the newly-added, modified, and touched files in a project, then link them into a binary file. Unlike the **Run** command, the **Make** command does not execute the binary file. The **Make** command is useful for creating dynamic link libraries (DLLs), shared libraries, code resources, or tools.

1. Select the project to make.
2. Choose **Project > Make**.

The IDE processes the project and creates a binary file.

Running Application Projects

Use the **Run** command to perform these tasks:

- Compile and link a project (if necessary).
- Create a standalone application.
- Change project settings (if required).
- Save the application.
- Run the application.

Note, the **Run** command is not available if the project creates a non-executable file like a dynamic linked library (DLL), shared library, library, code resource, or tool.

1. Select the project to run.
2. Choose **Project > Run**.

Synchronizing File Modification Dates

Use the **Synchronize Modification Dates** command to update the modification dates of all files stored in a project. This command is useful for handling files from a third-party editor that does not share file-status information with the IDE.

1. Select the project window.
2. Choose **Project > Synchronize Modification Dates**.

   The IDE checks the file-modification dates and marks modified files for re-compilation.

Removing Object Code

Use the **Remove Object Code** command to remove binary object code stored in the project file and reduce project size.

1. Open the desired project.
2. Choose **Project > Remove Object Code**.
3. Set compaction options as desired.
   - Select **Recurse subprojects** to remove object code from all subprojects in the project file.
   - Select **Compact targets** to remove these items:

     Target data files with the `.tdt` extension.

     Browser data.

     Dependency information.

     Additional data cached by the IDE.
4. Select the method by which the IDE removes the object code.
   - Click **All Targets** to remove object code from all build targets.
   - Click **Current Target** to remove object code only from the active build target.

The IDE removes the specified object code from the project.

17

Linkers

This chapter explains how to work with linkers in the CodeWarrior™ IDE. The IDE uses linkers to complete these tasks:

- Combine code—the linker combines source-file object code with object code from library files and other related files. The combined code represents a complete computer program.
- Create a binary file—the linker processes the complete program and generates a binary file. Sample binary files include applications and shared libraries.

Read this chapter to learn more about typical tasks for working with linkers.

This chapter contains these sections:

- Choosing Linkers on page 179
- Linking Projects on page 180

Choosing Linkers

Choose a linker to determine the binary file type produced by the IDE. This list describes common binary files:

- Applications—applications, or executable files, represent a wide body of computer programs. Common applications include word processors, web browsers, and multimedia players.
- Libraries—libraries contain code for use in developing new computer programs. Libraries simplify programming tasks and enhance re-usability.
- Specialized files—files designed for highly efficient operation in a specific context. Such files usually support a particular combination of hardware and software to perform tasks.

The IDE provides various linkers for software development. The **Target Settings** panel contains an option for selecting a linker. The IDE maps to each linker a group of recognized filename extensions. These mappings determine how the IDE interprets each file.

Linking Projects

Link projects to process object code and generate a binary file. Refer to the CodeWarrior *Targeting* documentation for more information about linkers for specific computer systems. This section explains general-purpose linker tasks.

Generating Project Link Maps

Use the **Generate Link Map** command to create a link-map file that contains function and cross-section information about the generated object code. The link map reveals the files, libraries, and functions ignored by the IDE while producing the binary output.

The IDE stores the link-map file in the project folder. The file uses the same name as the build target, with a `.MAP` or `.xMAP` extension.

1. Select the project window.
2. Choose **Edit >** ***targetname*** **Settings**...
3. Select the linker panel in the **Target Settings Panels** list.
4. Select the **Generate Link Map** option.
5. Click **Save**.
6. Choose **Project > Make**.

   The IDE generates the link-map file.

VI

Preferences and Target Settings

This section contains these chapters:

- Customizing the IDE on page 183
- Working with IDE Preferences on page 201
- Working with Target Settings on page 225
- Preference and Target Settings Options on page 239

18

Customizing the IDE

The CodeWarrior™ IDE enables you to customize menus, toolbars, and key bindings to suit your programming preferences. Use the **Customize IDE Commands** window—which consists of the Commands, Toolbar Items, and Key Bindings tabs—to build your customizations.

This chapter contains these sections:

- "Customizing IDE Commands" on page 183
- "Customize Toolbars" on page 192
- "Customize Key Bindings" on page 196

Customizing IDE Commands

You can customize the menu commands in the IDE's menu bar, as well as control the appearance of specific menu commands, create new command groups to distinguish menu commands, and associate a command line with a new menu command. The customized menu commands you create have access to IDE information, such as the current editor selection, the frontmost window, and the current project and its output file.

Select **Edit > Commands & Key Bindings** to access the Customize IDE Commands window. Figure 18.1 on page 184 shows the Customize IDE Commands window. Table 18.1 on page 184 explains each button in the window. See the tasks in this chapter for more detailed information.

Figure 18.1 Customize IDE Commands window

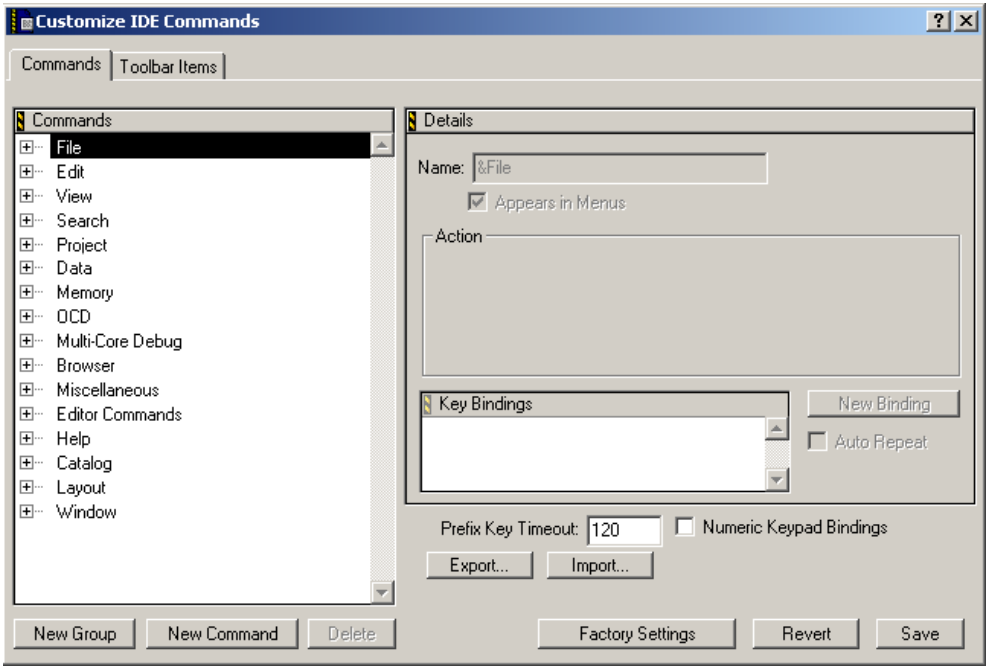


Table 18.1 Customize IDE Commands window—button overview

Button name	Explanation
New Group	Click to add a new command group to the Commands list.
New Command	Click to add a new command setting within a group.
Factory Settings	Click to restore default options for the current Customize IDE Commands (Commands and Toolbar Items) lists.
Revert	Click to restore the most recently saved options for the current Customize IDE Commands (Commands and Toolbar Items) lists.
Export	Click to save a file that contains commands and key bindings to use later in the Customize IDE Commands lists.

Table 18.1 Customize IDE Commands window—button overview (*continued*)

Button name	Explanation
Import	Click to open a file that contains commands and key bindings to use in the current Customize IDE Commands lists.
Save	Click to save customizations to the Customize IDE Commands list.

Commands Tab

Click the **Commands** tab at the top of the Customize IDE Commands window to display the commands view. Use this view to modify existing menu commands, and to create and remove command groups and menu commands.

Modifying Existing Commands

You can use the **Commands** tab of the Customize IDE Commands window to examine and modify existing command groups and menu commands. This view includes a Commands list. This hierarchical list organizes individual menu commands into command groups. Click the hierarchical control next to a command group to expand that group and view its contents.

To examine a particular item, select it in the Commands list. Information for the selected item appears on the right-hand side of the Customize IDE Commands window. This window provides this information for each selected item:

- **Name**—This field shows the name of the selected item. If the IDE does not permit you to change the name of the selected items, this field is grayed out.
- **Appears in Menus**—Enable this checkbox to display the selected item in the specified position in the CodeWarrior menu bar. For example, enabling this checkbox for a menu command allows that menu command to appear under the related command group in the menu bar. Disabling the checkbox prevents the menu command from appearing in the menu bar under the command group.
- **Action**—This section shows information about the action the selected item performs. For default menu commands, this section shows the command type, such as **Command** or **Hierarchical Menu**. For customized menu commands that you create, this section lets you specify a command line that runs after you choose the customized menu command.
- **Key Bindings**—This area consists of the Key Bindings list, the **New Binding** button, and the **Auto Repeat** checkbox.

Creating a New Command Group

To create a new command group for menu commands, follow these steps:

1. Click the **New Group** button.

   The IDE creates a new command group called **New Group**, adds it to the Commands list, and displays its information in the Customize IDE Commands window.

2. Rename the new command group in the **Name** field.

3. Use the **Appears in Menus** checkbox to toggle the availability of the new command group in the IDE menu bar.

   Select the Appears in Menus checkbox to display the new command group in the menu bar. Clear the checkbox if you do not want the command group to appear in the menu bar.

4. Click **Save**.

   The IDE saves your new command group. If you selected the **Appears in Menus** checkbox, your new command group appears in the menu bar.

Creating a New Menu Command

To create a new menu command, follow these steps:

1. Select the command group you want to contain the new menu command.

   You must select an existing command group in the Commands list.

2. Click the **New Command** button.

   The IDE creates a new menu command named **New Command** and places it within the selected command group. The information for the new menu command appears in the Customize IDE Commands window.

3. Enter a name for the new menu command.

   You can change the default name of **New Command**. Enter a new name in the Name field of the Customize IDE Commands window.

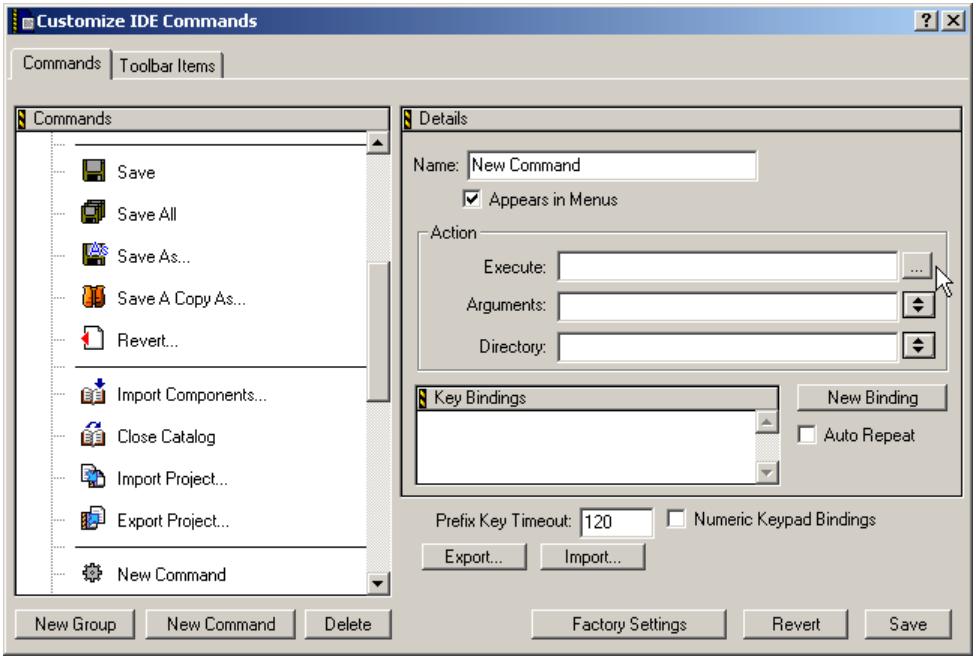
4. Use the **Appears in Menus** checkbox to toggle the availibility of the new command within its command group.

5. Define the desired Action for the new menu command.

6. Click **Save**.

The IDE saves your new menu command. If you enabled the **Appears in Menus** checkbox, the new menu command appears within the selected command group.

Figure 18.2 Command action fields



Defining Command Actions

These fields help you associate an action with the new menu command:

- **Execute**—Enter in this field a command to run an application. Alternatively, click the ellipsis button next to the field to select the application using a standard dialog box.
- **Arguments**—Enter the arguments that the IDE must pass to the application specified in the Execute field. Alternatively, choose the desired arguments from the pop-up menu next to the field.
- **Directory**—Enter the working directory the IDE should use when it executes the application specified in the Execute field. Alternatively, choose the desired directory from the pop-up menu next to the field.

Pre-defined Variables in Command Definitions

The IDE provides pre-defined variables to associate actions with commands. When you create a new command, you can use these pre-defined variables in command definitions to provide additional arguments that the IDE passes to the application (which is specified in the Execute field).

NOTE You can use variables that end with `Dir` as both argument and directory names.

Figure 18.3 Pre-defined Arguments

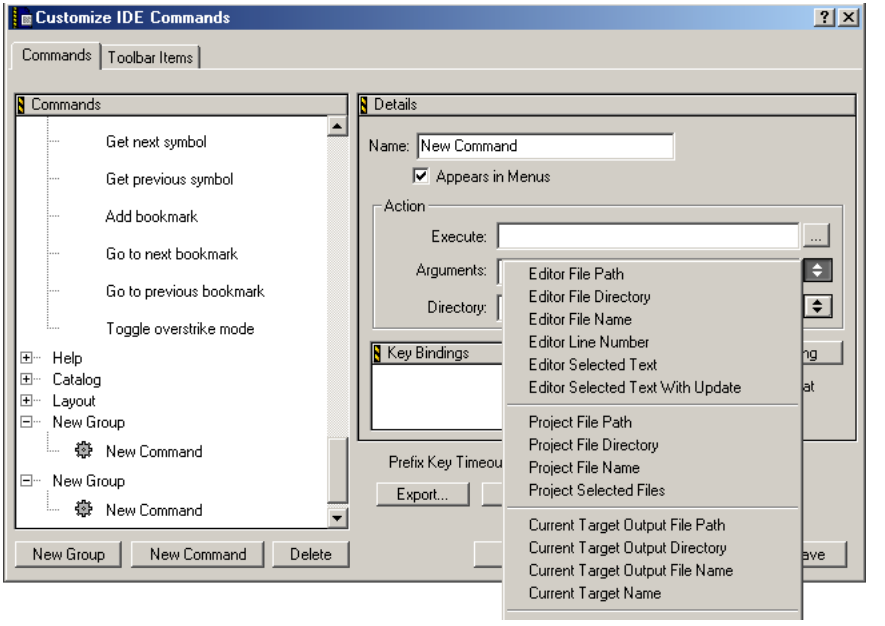


Figure 18.4 Pre-defined Directory variables

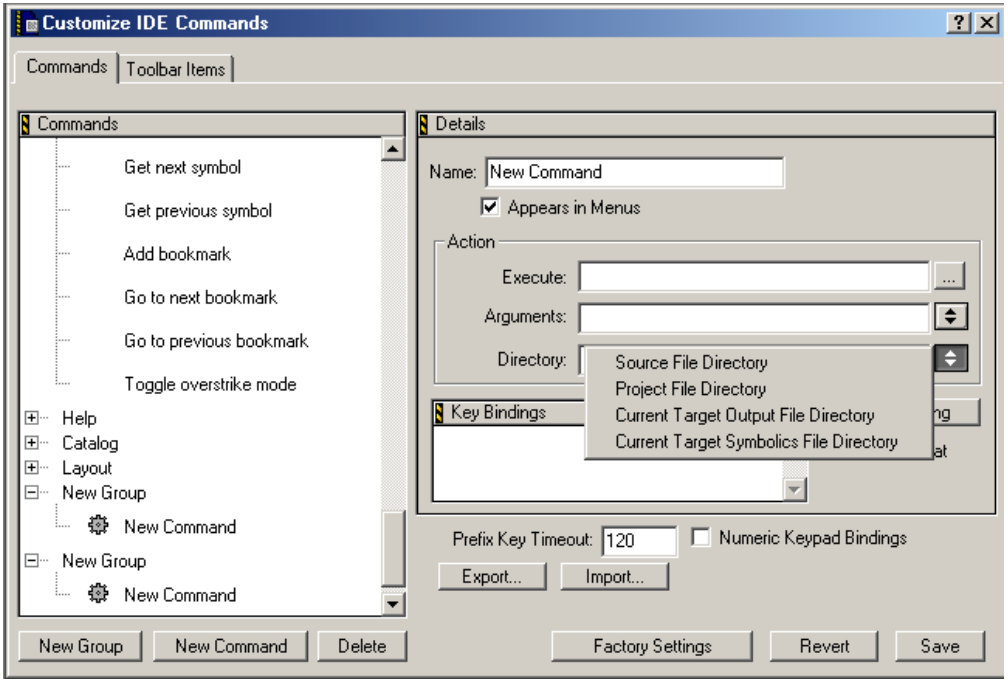


Table 18.2 on page 189 explains the pre-defined variables for command-line arguments.

Table 18.2 Pre-defined variables in command definitions

Variable	Command-line output
%sourceFilePath	**sourceFilePath** is the frontmost editor window's full path.
%sourceFileDir	**sourceFileDir** is the frontmost editor window's directory.
%sourceFileName	**sourceFileName** is the frontmost editor window's filename.
%sourceLineNumber	**sourceLineNumber** is the line number of the insertion point in the front window.
%sourceSelection	**sourceSelection** is the path to a temporary file containing the currently selected text.

Table 18.2 Pre-defined variables in command definitions (*continued*)

Variable	Command-line output
%sourceSelUpdate	**sourceSelUpdate** is like **sourceSelection**, except the IDE waits for the command to finish and updates the selected text with the contents of the file.
%projectFilePath	**projectFilePath** is the full path of the front project window.
%projectFileDir	**projectFileDir** is the directory of the front project window.
%projectFileName	**projectFileName** is the filename of the front project window.
%projectSelectedFiles	**projectSelectedFiles** passes the selected filenames in the project window.
%targetFilePath	**targetFilePath** is the full path of the output file of the front project.
%targetFileDir	**targetFileDir** is the directory of the output file of the front project.
%targetFileName	**targetFileNam**e is the filename of the output file of the front project.
%currentTargetName	**currentTargetName** passes the name of the current target of the frontmost window.
%symFilePath	**symFilePath** is the full path to the symbolics file of the front project (can be the same as targetFile, such as CodeView).
%symFileDir	**symFileDir** is the full directory to the symbolics file of the front project (can be the same as targetFile, such as CodeView)
%symFileName	**symFileName** is the full filename to the symbolics file of the front project (can be the same as targetFile, such as CodeView)

Using a Pre-defined Variable

To use a pre-defined variable, follow these steps:

1. Create a new menu command.

   The IDE creates a new menu command named **New Command** and places it within your selected command group. The information for the new menu command appears in the Customize IDE Commands window.

2. Enter a name for the new menu command.
3. Use the **Appears in Menus** checkbox to toggle the availability of the new command within its command group.
4. Define the Action for the new menu command.
   a. Enter in the **Execute** field a command line to run an application.
   b. Next to the **Arguments** field, click on the arrow icon and select an argument listed in the pop-up menu.
   c. Next to the **Directory** field, click on the arrow icon and select a directory listed in the pop-up menu.
5. Click **Save**.

The IDE saves your new menu command with the pre-defined variables. If you enabled the **Appears in Menus** checkbox, the new menu command appears within the selected command group.

Deleting Command Groups and Menu Commands

You can delete the command groups and menu commands that you create for the IDE. Once removed, the command groups no longer appear in the IDE's menu bar, and the menu commands no longer activate their associated command lines or applications.

NOTE If you need to temporarily remove your customized command groups and menu commands, consider exporting your settings. If you export your settings, you do not need to reconstruct them if you want them in the future.

To delete a command group or menu command, follow these steps:

1. Select the command group or menu command you wish to delete.

   If necessary, click the hierarchical control next to a group to expand and view its contents.

2. Click **Delete**.

   After clicking the **Delete** button, the selected command group or menu command disappears from the Commands list.

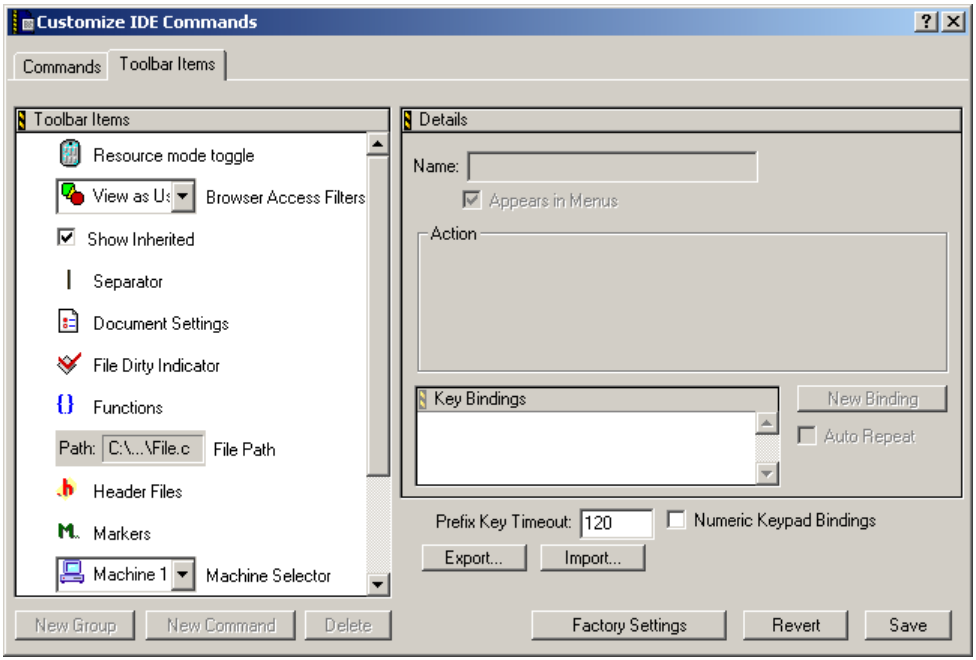
3. Click **Save**.

Clicking the **Save** button confirms the deletion. The IDE removes deleted command groups from its menu bar. Deleted menu commands disappear from their respective command groups.

Customize Toolbars

You can customize your IDE toolbars to contain frequently used commands. The IDE toolbars contain a series of elements. Each element typically represents a menu command. After you click the element, the IDE executes the associated menu command. The toolbar can also contain elements that execute actions other than menu commands.

Figure 18.5 Toolbar Items tab



This section explains these topics:

- "Kinds of Toolbars" on page 193
- "Toolbar Elements" on page 193
- "Modify a Toolbar" on page 193

Kinds of Toolbars

The CodeWarrior IDE uses two toolbar types:

- Main toolbar—This toolbar, also known as the floating toolbar, is always available.
- Window toolbars—These toolbars appear in particular windows, such as the Project window toolbar and the Browser window toolbar.

This distinction is important because you show, hide, clear, and reset the different toolbar types by using different sets of menu commands. These commands distinguish between the floating toolbar and the other window toolbars.

When you change one of these toolbar types, that change applies to every instance of that toolbar type you subsequently create. For example, if you modify the toolbar in an editor window, your changes appear in all editor windows opened thereafter.

Figure 18.6 Main toolbar

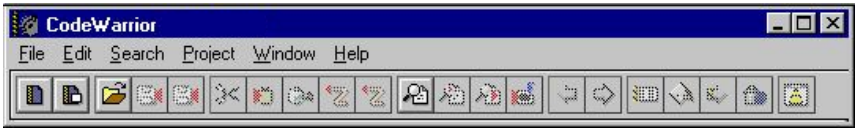


Figure 18.7 Project window toolbar

Toolbar Elements

A toolbar can contain these elements:

- *Commands*—buttons that you click to execute IDE menu commands
- *Controls*—menus, such as Document Settings, Functions, Header Files, Markers, Version Control, and Current Target
- *Miscellaneous*—other elements, such as the File Dirty Indicator and File Path field

Click the **Toolbar Items** tab at the top of the Customize IDE Commands window to display the Toolbar view. Use this view to add new elements to a toolbar.

Modify a Toolbar

You can modify a toolbar in these ways:

- Add a toolbar element

- Remove a toolbar element
- Clear all elements on a toolbar
- Reset a toolbar

In certain circumstances there are restrictions on which elements you can add or remove from a toolbar. For example, you cannot add a second instance of an element to the toolbar.

After you modify a toolbar, the changes apply to every instance of that toolbar. For example, if you customize the Project window toolbar, those changes will affect every Project window that you open, not just the toolbar in the active Project window. Your changes do not affect windows that are already open.

TIP To display a ToolTip that names a toolbar element, rest the cursor over the element.

Adding a Toolbar Element

You add an element to a toolbar by dragging and dropping it from the Toolbar Items list onto a toolbar. This list is in the **Toolbar Items** view in the Customize IDE Commands window.

To add an element to a toolbar, follow these steps:

1. From the **Toolbar Items** list, select the icon next to the element that you want to add to a toolbar.

   Make sure that the destination toolbar is visible.

2. Drag the element's icon from the Toolbar Items list to the destination toolbar.

   If the destination toolbar accepts the element, a framing bracket appears in the toolbar. This framing bracket shows you where the new element will appear after you release the cursor. If the destination toolbar does not accept the element, the framing bracket does not appear.

3. Release the element at the desired position.

   After you release the element, the IDE inserts the element into the destination toolbar.

The toolbar might not accept an element for these reasons:

- The toolbar is full.
- The element already exists in the toolbar.
- The window does not support that element.

- The following elements can only be added to the editor window toolbar: Document Settings, Functions, Header Files, Markers, Version Control menus, File Dirty Indicator, and File Path field.
- The **Current Target** menu element can only be added to the Project window toolbar.

Removing a Toolbar element

To remove an element from a toolbar, follow these steps:

1. Right-click a toolbar button to display a contextual menu for the button that you want to remove.
2. Select the **Remove Toolbar Item** command from the contextual menu.

The IDE removes the button from the toolbar.

Clearing All Buttons on Toolbars

You can clear all elements from a toolbar and build your own toolbar from scratch. Table 18.3 on page 195 explains how to clear the main (floating) toolbar and window toolbars.

Table 18.3 Clearing toolbars

On this host…	Do this to clear the main toolbar…	Do this to clear the window toolbar…
Windows	Select **View > Toolbars > Clear Main Toolbar**.	Select **View > Toolbars > Clear Window Toolbar**.

Reset Toolbars

Reset a toolbar to restore its default button set. Table 18.4 on page 195 explains how to reset the main (floating) toolbar and window toolbar by using menu commands.

Table 18.4 Resetting a toolbar by using menu commands

On this host…	Do this to reset the main toolbar…	Do this to reset the window toolbar…
Windows	Select **View > Toolbars > Reset Main Toolbar**.	Select **View > Toolbars > Reset Window Toolbar**.

Alternatively, you can use a contextual menu to reset the main toolbar or a window toolbar. Once you reset the toolbar, the IDE restores the default toolbar button set. Table 18.5 on page 196 explains how to reset the main (floating) toolbar and window toolbar.

Table 18.5 Resetting a toolbar by using a contextual menu

On this host…	Do this to reset the main toolbar…	Do this to reset the window toolbar…
Windows	Right-click the toolbar and select **Reset Toolbar**.	Right-click the toolbar and select **Reset Toolbar**.

Customize Key Bindings

You can customize the keyboard shortcuts, known as key bindings, for various commands in the CodeWarrior IDE. You can bind a set of keystrokes to virtually any command. To activate the command, type its associated key binding. Use the Customize IDE Commands window to change IDE key bindings.

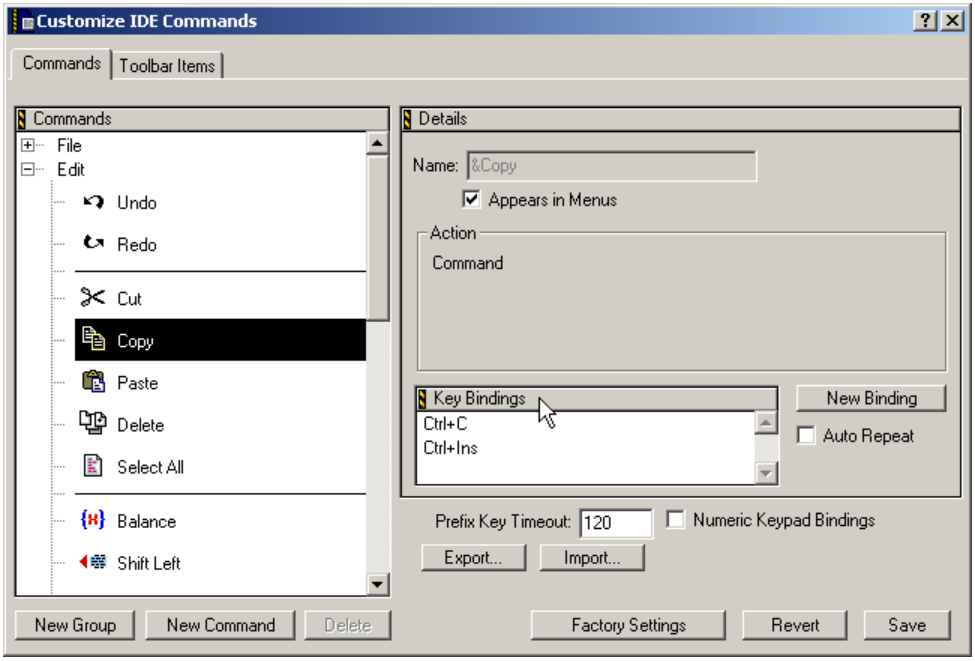
You can also use the Customize IDE Commands window to look up default key bindings for specific commands, as well as change existing key bindings to better suit your needs.

Click the **Commands** tab at the top of the Customize IDE Commands window to display the Commands view. Use this view to configure key bindings for menu commands, editor actions, and other actions. You can also specify prefix keys.

This section has these topics:

- Modifying key bindings
- Adding key bindings
- Deleting key bindings
- Setting Auto Repeat for key bindings
- Exporting commands and key bindings
- Importing commands and key bindings
- Quote key prefix

Figure 18.8 Customize IDE Commands—Key Bindings



Adding Key Bindings

Use the Customize IDE Commands window to specify additional key bindings for a particular command.

To add a key binding, follow these steps:

1. From the Commands list, select the command to which you want to add a new key binding.

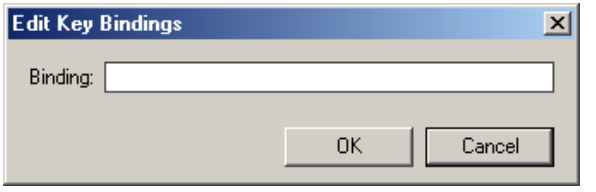
   Click the hierarchical controls next to the command categories to expand them as necessary so that you can see individual commands. Select the individual command you wish to modify.

NOTE If you want to use your keyboard's numeric keypad as part of the new key binding, enable the **Numeric Keypad Bindings** checkbox in the Customize IDE Commands window.

2. Click **New Binding**.

   After clicking this button, the **Edit Key Binding** dialog box appears.

Figure 18.9 Edit Key Bindings



3. Create the key combination you would like to use for the selected command.

   For example, to add the key combination Ctrl-8, hold down the **Ctrl** key and press the **8** key, then release both keys at the same time.

   If you decide against the key combination that you just entered, or if you make a mistake, click **Cancel** in the **Edit Key Binding** dialog box. The IDE discards changes and returns you to the Customize IDE Commands window.

4. Click **OK** in the Edit Key Binding dialog box.

   The new key binding appears in the Key Bindings list in the Customize IDE Commands window.

5. Click **Save** in the Customize IDE Commands window to save your changes.

   The new key binding is now available for use in the IDE.

Exporting Commands and Key Bindings

You can export to a file the custom commands and key bindings that you use with the IDE. You can then import the file into another IDE running on a different computer in order to transfer all of your custom commands and key bindings. This process simplifies your setup on the other computer because you do not have to recreate your custom commands and key bindings manually.

NOTE After you import your custom commands and key bindings into another computer, the IDE running on that computer first sets all its commands and key bindings to their default values, then imports your custom commands and key bindings.

To export your custom commands and key bindings, follow these steps:

1. Click **Export** in the Customize IDE Commands window.

   After you click this button, a standard **Save** dialog box appears.

2. Select a location in which to save the `Commands&KeyBindings.mkb` file.

   This file contains information about your custom commands and key bindings.

3. Click **Save**.

   The IDE saves the `Commands&KeyBindings.mkb` file at the selected location.

TIP You can rename the `Commands&KeyBindings.mkb` file, but remember to preserve the `.mkb` extension. This extension identifies the file as a `Freescale Key Bindings` file. Furthermore, the Windows-hosted version of the CodeWarrior IDE uses this extension to properly recognize the commands and key bindings file.

Importing Commands and Key Bindings

You can import custom commands and key bindings from a previously exported file. `Commands&KeyBindings.mkb` is the default name of an exported file for custom commands and key bindings.

NOTE After you import your custom commands and key bindings into another computer, the IDE running on that computer first sets all its commands and key bindings to their default values, then imports your custom commands and key bindings.

To import commands and key bindings, follow these steps:

1. Click **Import** in the Customize IDE Commands window.

   After you click this button, a standard **Open** dialog box appears.

2. Use the dialog box to find and open the `Commands&KeyBindings.mkb` file that you want to import.

   The IDE adds the custom commands and key bindings to the Customize IDE Commands window.

Quote Key prefix

The Quote Key is a special prefix key that lets you use any character (such as a-z) as a command key without a modifier key, and still retain the ability to use that character normally, as in editor windows.

In typical use, a key equivalent involves two keys: a modifier key (such as the Ctrl key) combined with a printing key. However, the IDE does not require a modifier key.

For example, you can assign the **2** key (with no modifier) to a command. If you make this assignment, you can no longer type a 2 into your source code in the editor. This conflict occurs because the IDE now interprets the 2 as a command key instead of a printing key. The Quote Key prefix provides the solution to such conflicts.

You can configure the IDE to recognize any key as the Quote Key prefix. Despite its name, the Quote Key prefix does not have to be the key that creates the quote character (").

After typing an assigned Quote Key prefix, the IDE interprets the next keypress as a keystroke, not as a command.

Returning to the earlier example, assume that you assign the 2 key to a command and the tilde key (~) to be your Quote Key prefix. To execute the command, you would type the 2 key. To enter the character 2 into source code, you would type the tilde key first, then the 2 key. To enter the tilde character into source code, you would press the tilde key twice.

WARNING! The Quote Key only affects the next key or key combination that you type. You must use the Quote Key once for each bound key or key combination for which you want to type.

Assigning the Quote Key prefix

To assign the Quote Key prefix:

1. Click the expand control next to the Miscellaneous command group.

   Miscellaneous is part of the **Commands** list in the Customize IDE Commands window.

2. Select the **Quote Key** item.

NOTE If you want to use the numeric keypad as part of the new key binding, enable the **Numeric Keypad Bindings** checkbox in the Customize IDE Commands window.

3. Click **New Binding** to display the Edit Key Bindings dialog box.
4. Type the desired Quote Key prefix.

   The keys you type appear in the dialog box. If you make a mistake or decide against the keys you typed, click **Cancel** to return to the Customize IDE Commands window.

5. Click OK in the Edit Key Binding dialog box.

   The new Quote Key prefix appears in the Key Bindings list.

19

Working with IDE Preferences

This chapter explains core CodeWarrior™ IDE preference panels and provides basic information on global- and project-level preference options. Consult the *Targeting* documentation for information on platform-specific preference panels.

This chapter contains these sections:

- "IDE Preferences Window" on page 201
- "General Panels" on page 203
- "Editor Panels" on page 213

Abbreviated descriptions appear in this chapter. See "Preference and Target Settings Options" on page 239 for more information on preference-panel options.

IDE Preferences Window

The **IDE Preferences** window lists global IDE options. These preferences, unless superseded by a Target Settings option, apply to every open project file. Select **Edit > Preferences** to open the IDE Preferences window.

The IDE Preferences window lists preferences by group:

- **General**—configures overall IDE preferences, such as project builds, recent items, and third-party tools
- **Editor**—configures editor preferences, such as fonts, tabs, and syntax coloring
- **Debugger**—configures debugger preferences, such as window hiding during debugging sessions, low-level interactions, and variable highlighting

Figure 19.1 IDE Preferences window

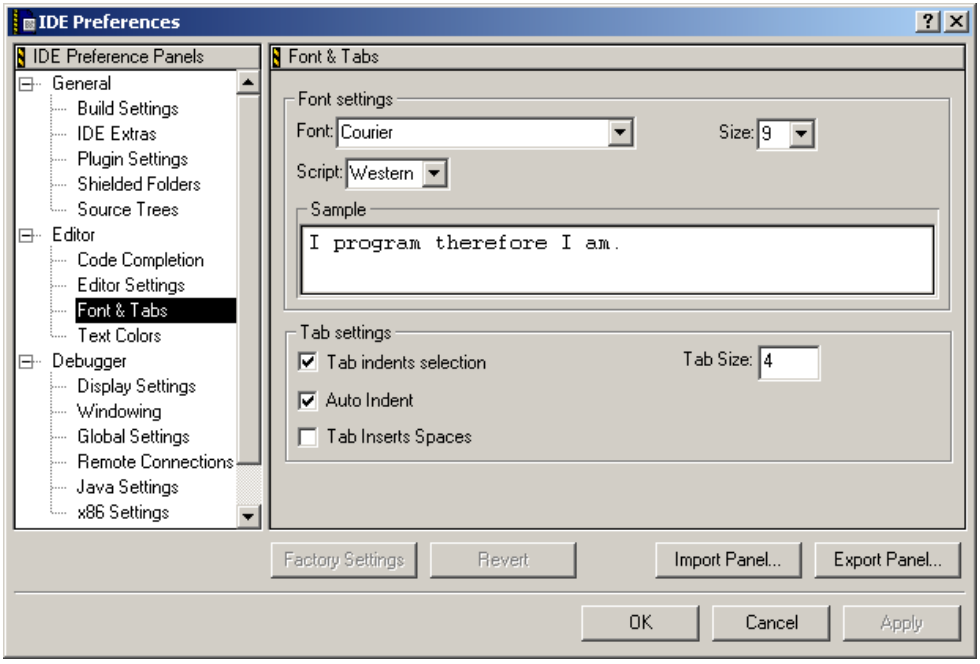


Table 19.1 IDE Preferences window

Item	Explanation
IDE Preference Panels list	Lists preference panels, organized by group. Click the hierarchical control next to a group name to show or hide individual preference panels.
Preference panel	Shows options for the selected item in the **IDE Preference Panels** list.
Factory Settings on page 249	Click to restore the default options for the current preference panel.
Revert Panel on page 256	Click to restore the most recently saved options for the current preference panel.
Export Panel on page 246	Click to save an XML file that contains options for the current preference panel.

Table 19.1 IDE Preferences window (*continued*)

Item	Explanation
Import Panel on page 251	Click to open an XML file that contains options for the current preference panel.
OK	Click to save modifications to all preference panels and close the window.
Cancel	Click to discard modifications to all preference panels and close the window.
Apply	Click to confirm modifications to all preference panels.

General Panels

The **General** section of the IDE Preference Panels defines basic options assigned to a new project.

The General preference panels available on most IDE hosts include:

- "Build Settings" on page 203
- "Concurrent Compiles" on page 204
- "IDE Extras" on page 205
- "Plugin Settings" on page 207
- "Shielded Folders" on page 208
- "Source Trees" on page 210

Build Settings

The **Build Settings** preference panel provides options for customizing various aspects of project builds, including:

- file actions during project builds
- memory usage to accelerate builds
- local data storage of projects stored on read-only volumes

Figure 19.2 Build Settings preference panel

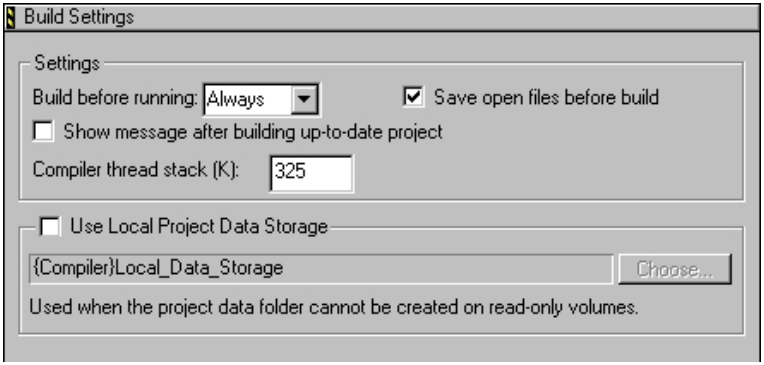


Table 19.2 Build Settings preference panel

Item	Explanation
Build before running on page 242	Choose to always build the project before running it, never build the project before running it, or ask for the desired action.
Save open files before build on page 256	Select to automatically save the contents of all editor windows before starting a build.
Show message after building up-to-date project on page 258	Select to have the IDE display a message after successfully building a project.
Compiler thread stack on page 243	Enter the kilobytes of memory to allocate to the stack for execution of the IDE compiler thread. Increase the size when compiling heavily optimized code.
Use Local Project Data Storage on page 261	Select to specify a location to save project data if the project is on a read-only volume. Click **Choose** to select the location.

Concurrent Compiles

The **Concurrent Compiles** preference panel controls execution of simultaneous IDE compilation processes. The IDE lists this panel in the IDE Preference Panels list when the active compiler supports concurrency.

The IDE uses concurrent compiles to compile code more efficiently. The IDE improves its use of available processor capacity by spawning multiple compile processes, which allow the operating system to perform these tasks as needed:

- optimize resource use
- use overlapped input/output

For those compilers that support concurrency, concurrent compiles improve compile time on both single- and multiple-processor systems.

Figure 19.3 Concurrent Compiles preference panel

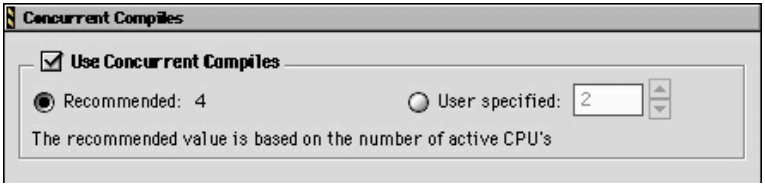


Table 19.3 Concurrent Compiles preference panel

Item	Explanation
Use Concurrent Compiles	Select to have the IDE run multiple compilation processes simultaneously.
Recommended on page 255	Select to allow the number of concurrent compiles suggested by the IDE.
User Specified on page 263	Select to stipulate the number of concurrent compiles.

IDE Extras

The **IDE Extras** preference panel provides options for customizing various aspects of the IDE, including:

- menu-bar layout
- the number of recent projects, document files, and symbolics files to remember
- use of a third-party editor

Figure 19.4 IDE Extras preference panel

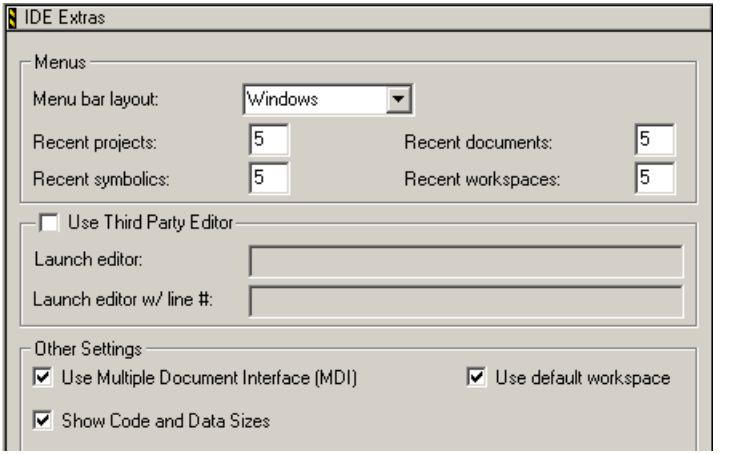


Table 19.4 IDE Extras preference panel

Item	Explanation
Menu bar layout	Choose a layout that organizes IDE menus into a typical host-platform menu bar. Restart the IDE in order for menu-bar layout changes to take effect.
Projects on page 255	Enter the number of recently opened projects for the IDE to display in the **Open Recent** submenu. Enter zero to disable this feature.
Documents on page 245	Enter the number of recently opened documents for the IDE to display in the **Open Recent** submenu. Enter zero to disable this feature.
Symbolics on page 259	Enter the number of recently opened symbolics files for the IDE to display in the **Open Recent** submenu. Enter zero to disable this feature.
Workspaces on page 264	Enter the number of recently opened workspaces for the IDE to display in the **Open Recent** submenu. Enter zero to disable this feature.
Use Third Party Editor on page 262	Select to use a third-party text editor to edit source files.

Table 19.4 IDE Extras preference panel (*continued*)

Item	Explanation
Launch Editor on page 252	Enter a command-line expression that runs the desired third-party text editor.
Launch Editor w/ Line # on page 253	Enter a command-line expression that runs the desired third-party text editor and passes to that editor an initial line of text to display.
Use Multiple Document Interface on page 261	Select to have the IDE use the Multiple Document Interface (MDI). Clear to have the IDE use the Floating Document Interface (FDI). Restart the IDE in order for interface changes to take effect.
Use default workspace on page 260	Select this option to have the IDE use the default workspace to save and restore state information. Clear this option to have the IDE always start in the same state.
Show Code and Data Sizes on page 257	Displays or hides Code and Data columns in project manager.

Plugin Settings

The **Plugin Settings** preference panel contains options for troubleshooting third-party IDE plug-ins.

Figure 19.5 Plugin Settings preference panel

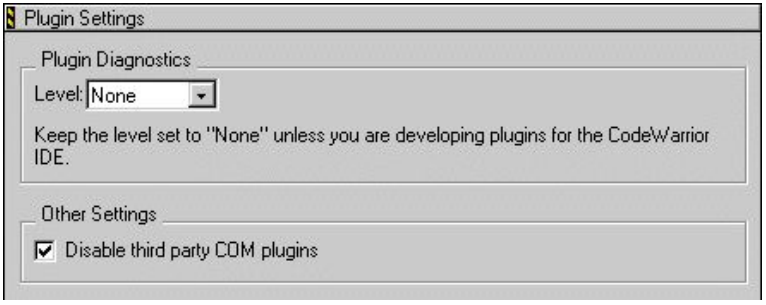

Plugin Settings
Plugin Diagnostics
Level: None
Keep the level set to "None" unless you are developing plugins for the CodeWarrior IDE.
Other Settings
Disable third party COM plugins

Table 19.5 Plugin Settings preference panel

Item	Explanation
Level on page 253	Choose the plug-in diagnostics level the IDE generates the next time it loads plug-ins. Restart the IDE in order for diagnostic-level changes to take effect. Options are None, Errors Only, and All Info.
Disable third party COM plugins on page 244	Select to prevent the IDE from loading third-party Common Object Model (COM) plug-ins.

Shielded Folders

The **Shielded Folder** preference panel enables the IDE to ignore specified folders during project operations and find-and-compare operations. The IDE ignores folders based on matching names with regular expressions defined in the preference panel.

NOTE If the **Access Paths** settings panel in the Target Settings window contains a path to a shielded folder, the IDE overrides the shielding and includes the folder in project operations and find-and-compare operations.

Figure 19.6 Shielded Folders preference panel

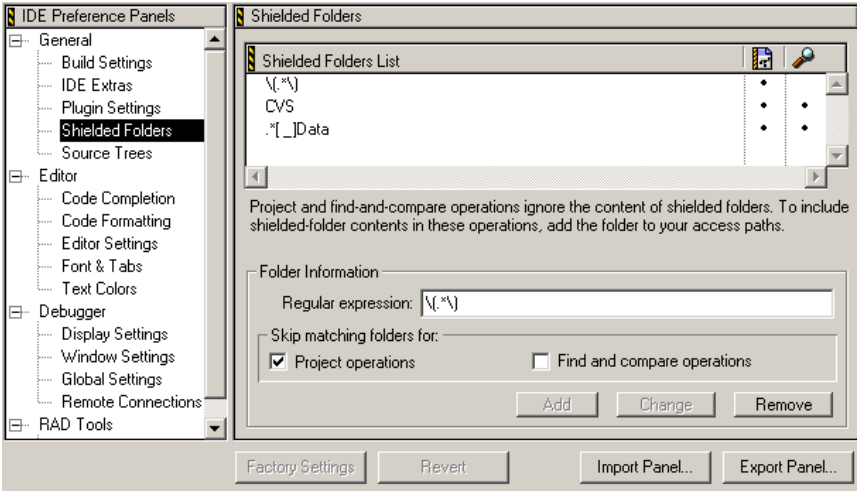


Table 19.6 Shielded Folders preference panel

Item	Icon	Explanation
Shielded folder list		Lists folders that match the specified regular expression. The IDE skips these folders during project operations, find-and-compare operations, or both.
Regular Expression on page 255		Enter the regular expression used to shield folders from selected operations.
Project operations on page 255		Select to have the IDE skip folders during project operations. A bullet appears in the corresponding column of the shielded folder list.
Find and compare operations on page 249		Select to have the IDE skip folders during find-and-compare operations. A bullet appears in the corresponding column of the shielded folder list.
Add		Click to add the current **Regular Expression** field entry to the shielded folder list.
Change		Click to replace the selected regular expression in the shielded folder list with the current **Regular Expression** field entry.
Remove		Click to delete the selected regular expression from the shielded folder list.

Table 19.7 Default regular expressions in Shielded Folders panel

Regular Expression	Explanation
`\(.*\)`	Matches folders with names that begin and end with parentheses, such as the `(Project Stationery)` folder.

Table 19.7 Default regular expressions in Shielded Folders panel (*continued*)

Regular Expression	Explanation
`CVS`	Matches folders named `CVS`. With this regular expression, the IDE skips Concurrent Versions System (CVS) data files.
`.*[_]Data`	Matches the names of folders generated by the IDE that store target data information, such as a folder named `MyProject_Data`.

Source Trees

Use the **Source Trees** panel to add, modify, and remove source trees (root paths) used in projects. Use source trees to define common access paths and build-target outputs to promote sharing of projects across different hosts. Source trees have these scopes:

- *Global source trees*, defined in the IDE Preferences window, apply to all projects.
- *Project source trees*, defined in the Target Settings window for a particular project, apply only to files in that project. Project source trees always take precedence over global source trees.

Except for the difference in scope, global and project source trees operate identically.

Figure 19.7 Source Trees panel

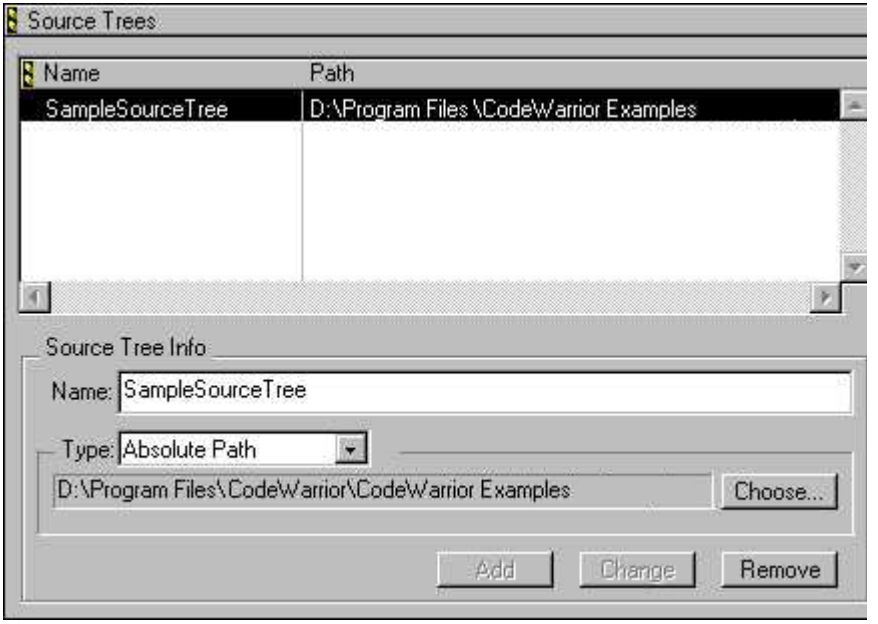


Table 19.8 Source Trees panel

Item	Explanation
Source Tree list	Contains the **Name** and **Path** of currently defined source trees.
Name	Enter a name for a new source tree or modify the name of a selected source tree.
Type on page 260	Choose the source-tree path type.
Choose	Click to select or modify a source-tree path.
Add	Click to add a new source-tree path to the Source Tree list.
Change	Click to modify the selected source-tree name or path.
Remove	Click to delete the selected source tree from the Source Tree list.

Adding Source Trees

Add source trees that define root paths for access paths and build-target output.

1. Choose **Edit > Preferences**.

   The IDE Preferences window appears.
2. Select the **Source Trees** panel from the **IDE Preference Panels** list.
3. Enter in the **Name** field a name for the new source tree.
4. Choose the source tree **Type**:
   - **Absolute Path**—defines a path from the root level of the hard drive to a desired folder, including all intermediate folders
   - **Environment Variable**— defines an environment variable in the operating environment
   - **Registry Key**— defines a key entry in the operating-environment registry
5. Enter the source-tree definition:
   - For **Absolute Path**—Click **Choose** to display a subordinate dialog box. Use the dialog box to select the desired folder. The absolute path to the selected folder appears in the **Source Trees** preference panel.
   - For **Environment Variable**—Enter the path to the desired environment variable.
   - For **Registry Key**—Enter the path to the desired key entry in the registry.
6. Click **Add**.

   The IDE adds the new source tree to the **Source Trees** list.
7. Click **OK**, **Apply**, or **Save**.

   The IDE saves the source-tree changes.

Changing Source Trees

Change a source tree to update path information for a project. The IDE must be able to resolve source trees before building the project.

1. Choose **Edit > Preferences**.
2. Select the **Source Trees** panel from the **IDE Preference Panels** list.
3. Select the desired source tree in the **Source Trees** list.
4. If needed, enter a new name for the selected source tree.
5. If needed, choose a new path type for the selected source tree.

6. Click **Change**.

   The IDE updates the source tree and displays changes in the **Source Trees** list. A reminder message to update source-tree references in the project appears.

7. Click **OK**, **Apply**, or **Save**.

   The IDE saves the source-tree changes.

Removing Source Trees

Remove source trees that the project no longer uses. The IDE must be able to find the remaining source trees before building the project.

1. Choose **Edit > Preferences**.
2. Select the **Source Trees** panel from the **IDE Preference Panels** list.
3. Select the source tree from the **Source Trees** list.
4. Click **Remove**.

   The IDE updates the **Source Trees** list. A reminder message to update source-tree references in the project appears.

5. Click **OK**, **Apply**, or **Save**.

   The IDE saves the source-tree changes.

Editor Panels

The **Editor** section of the IDE Preference Panels list defines the editor settings assigned to a new project.

The Editor preference panels available on most IDE hosts include:

- "Code Completion" on page 213
- "Code Formatting" on page 215
- "Editor Settings" on page 217
- "Font & Tabs" on page 219
- "Text Colors" on page 221

Code Completion

The **Code Completion** preference panel provides options for customizing the IDE code-completion behavior, including:

- automatic invocation and indexing

- window positioning and appearance delay
- case sensitivity

Figure 19.8 Code Completion preference panel

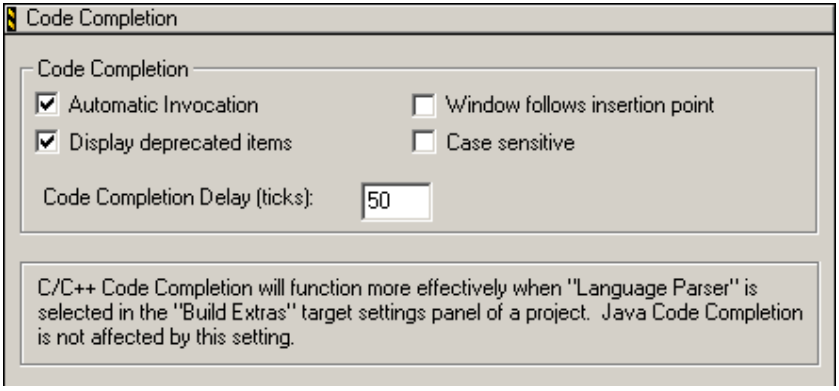

Code Completion
Code Completion
Automatic Invocation
Window follows insertion point
Display deprecated items
Case sensitive
Code Completion Delay (ticks):
50
C/C++ Code Completion will function more effectively when "Language Parser" is selected in the "Build Extras" target settings panel of a project. Java Code Completion is not affected by this setting.

Table 19.9 Code Completion preference panel

Item	Explanation
Automatic Invocation on page 240	Select to automatically open the Code Completion window to complete programming-language symbols. Clear to manually open the window.
Window follows insertion point on page 263	Select to have the Code Completion window follow the insertion point as you edit text. Clear to leave the window in place.
Display deprecated items on page 244	Select to have the Code Completion window display obsolete items in gray text. Clear to have the window hide obsolete items.
Case sensitive on page 242	Select to have the IDE consider case when completing code. Clear to have the IDE ignore case.
Code Completion Delay on page 242 (ticks)	Enter the number of ticks to wait before opening the Code Completion window. A tick is 1/60 of a second.

Code Formatting

The **Code Formatting** preference panel provides options for customizing editor code-formatting behavior, including:

- indenting
- syntax placement
- brace handling

Figure 19.9 Code Formatting preference panel

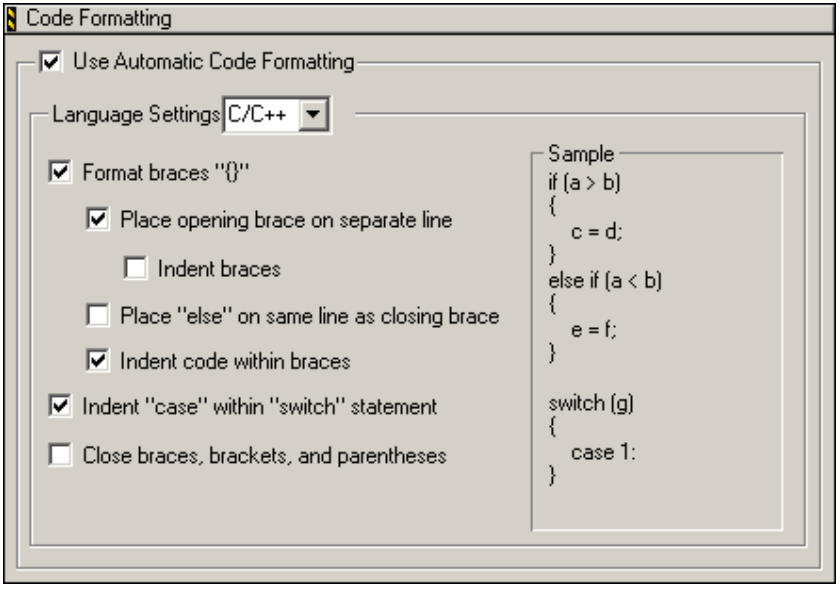


Table 19.10 Code Formatting preference panel

Item	Explanation
Use Automatic Code Formatting	Check to have the editor automatically format your source code according to settings in this panel. Clear to prevent the editor from automatically formatting your code.
Language Settings	Use to specify the language type that you want to format. Your selection changes the other options in this panel to their default states for the selected language.

Table 19.10 Code Formatting preference panel (*continued*)

Item	Explanation
Format braces	Check to have the editor automatically insert a closing brace when you type an opening brace. The editor places the cursor between the opening brace that you typed and the closing brace that it inserts. Clear to prevent the editor from automatically inserting a closing brace when you type an opening brace.
Place opening brace on separate line	Check to have the editor place on the next line an opening brace that you type. Clear to prevent the editor from placing on the next line an opening brace that you type.
Indent braces	Check to have the editor indent braces by one tab stop from the previous line. Clear to prevent the editor from indenting braces by one tab stop from the previous line.
Place “else” on same line as closing brace	Check to have the editor place `else` and `else if` text on the same line as the closing brace of the `if` or `else if` statement. Clear to prevent the editor from placing `else` and `else if` text on the same line as the closing brace of the `if` or `else if` statement.
Indent code within braces	Check to have the editor indent code by one tab stop from the braces. Clear to prevent the editor from indenting code by one tab stop from the braces.

Table 19.10 Code Formatting preference panel (*continued*)

Item	Explanation
Indent “case” within “switch” statement	Check to have the editor indent `case` statements by one tab stop inside a `switch` statement. Clear to prevent the editor from indenting `case` statements by one tab stop inside a `switch` statement.
Close braces, brackets, and parentheses	Check to have the editor automatically insert the corresponding closing character when you type an opening brace, bracket, or parenthesis. The editor places the cursor between the opening character and the closing character. Clear to prevent the editor from automatically inserting the corresponding closing character when you type an opening brace, bracket, or parenthesis.

Editor Settings

The **Editor Settings** preference panel provides options for customizing the editor, including:

- fonts, window locations, and insertion-point positions
- contextual menus
- additional editor-window features

Figure 19.10 Editor Settings preference panel

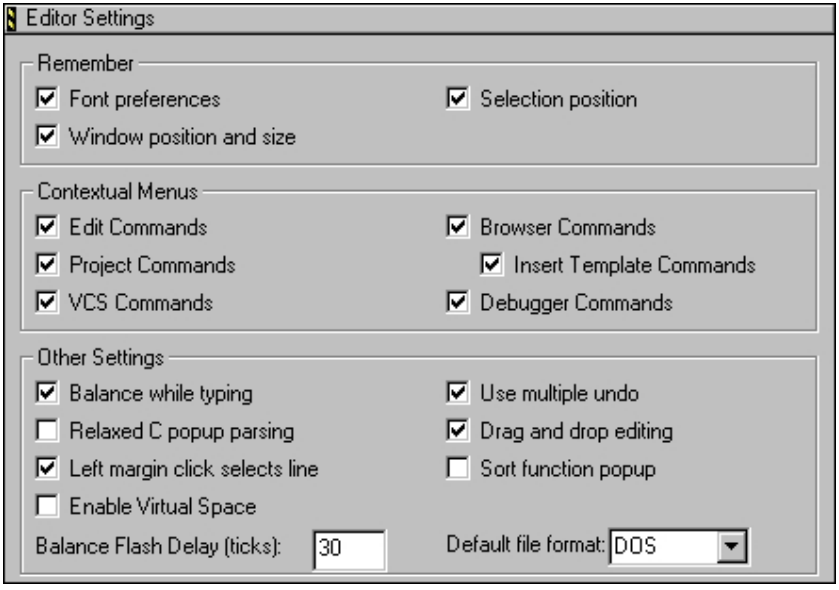


Table 19.11 Editor Settings preference panel

Item	Explanation
Font preferences on page 250	Select to retain font settings for each source file. Clear to apply default font settings each time the IDE displays the source file.
Selection position on page 257	Select to retain the text-insertion position in each source file.
Window position and size on page 264	Select to retain the location and dimensions of each editor window.
Edit Commands on page 245	Select to add **Edit** menu commands to contextual menus.
Browser Commands on page 242	Select to add **Browser** menu commands to contextual menus. Also select in order to use the **Insert Template Commands** option.
Project Commands on page 255	Select to add **Project** menu commands to contextual menus.

Table 19.11 Editor Settings preference panel (*continued*)

Item	Explanation
VCS Commands on page 263	Select to add **VCS** (Version Control System) menu commands to contextual menus.
Balance while typing on page 241	Select to flash the matching `(`, `[`, or `{` after typing `)`, `]`, or `}` in an editor window.
Use multiple undo on page 262	Select to allow multiple undo and redo operations while editing text.
Relaxed C popup parsing on page 256	Select to allow the C parser to recognize some non-standard function formats and avoid skipping or misinterpreting some definition styles.
Drag and drop editing on page 245	Select to allow drag-and-drop text editing.
Left margin click selects line on page 253	Select to allow selection of an entire line of text by clicking in the left margin of the editor window.
Sort function popup on page 258	Select to sort function names by alphabetical order in menus. Clear to sort function names by order of appearance in the source file.
Enable Virtual Space on page 246	Select to allow moving the text-insertion point beyond the end of a source-code line. Entering new text automatically inserts spaces between the former end of the line and the newly entered text.
Balance Flash Delay on page 241	Enter the number of ticks to flash a balancing punctuation character. A tick is1/60 of a second.
Default file format	Choose the default end-of-line format used to save files.

Font & Tabs

The **Font & Tabs** preference panel provides options for customizing settings used by the editor, including:

- font and font size used in editor windows
- auto indentation and tab size
- tabs on selections and replacing tabs with spaces

Figure 19.11 Font & Tabs preference panel

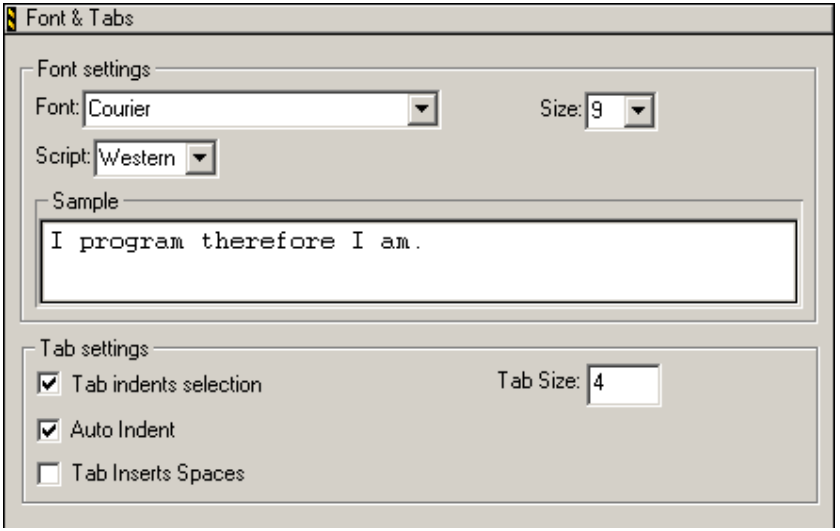


Table 19.12 Font & Tabs preference panel

Item	Explanation
Font on page 249	Choose the typeface displayed in editor windows.
Size on page 258	Choose the font size displayed in editor windows.
Script on page 257	Choose the IDE script system. The script system maps keyboard keys to characters of an alphabet.
Tab indents selection on page 259	Select to indent each line of selected text after pressing Tab. Clear to replace selected text with a tab character after pressing Tab.
Tab Size on page 259	Enter the number of spaces to substitute in place of a tab character. This number applies to the **Tab Inserts Spaces** option.
Auto Indent on page 240	Select to automatically apply the indentation level from the previous line of text to each new line created by pressing Enter or Return.
Tab Inserts Spaces on page 259	Select to insert spaces instead of a tab character after pressing Tab. The **Tab Size** option determines the number of inserted spaces.

Setting the Text Font

To set the text font, follow these steps:

1. Choose **Edit > Preferences**.
2. Select the **Font & Tabs** panel in the **Editor** group in the **IDE Preference Panels** list.
3. In the **Font Settings** area of the **IDE Preferences** window, select a font type in the drop-down menu in the **Font** field.
4. Click OK to save your font in the **IDE Preferences** window.

   The foreground text changes to the new font.

Setting the Text Size

To set the text size, follow these steps:

1. Choose **Edit > Preferences**.
2. Select the **Font & Tabs** panel in the **Editor** group in the **IDE Preference Panels** list.
3. In the **Font Settings** area of the IDE Preferences window, select the **Size** drop-down menu and choose a text point size (from 2 to 24 points).
4. Click OK to save your text size in the **IDE Preferences** window.

   The foreground text changes to the new size.

Text Colors

The **Text Colors** preference panel customizes colors applied to elements of source code displayed in editor windows, such as:

- default foreground and background in editor windows
- standard comments, keywords, and strings in source code
- custom-defined keywords
- browser symbols

Default settings provide a simple scheme of at least four source-code colors. If four colors do not provide sufficient detail, modify this preference panel to create more sophisticated color schemes.

Figure 19.12 Text Colors preference panel

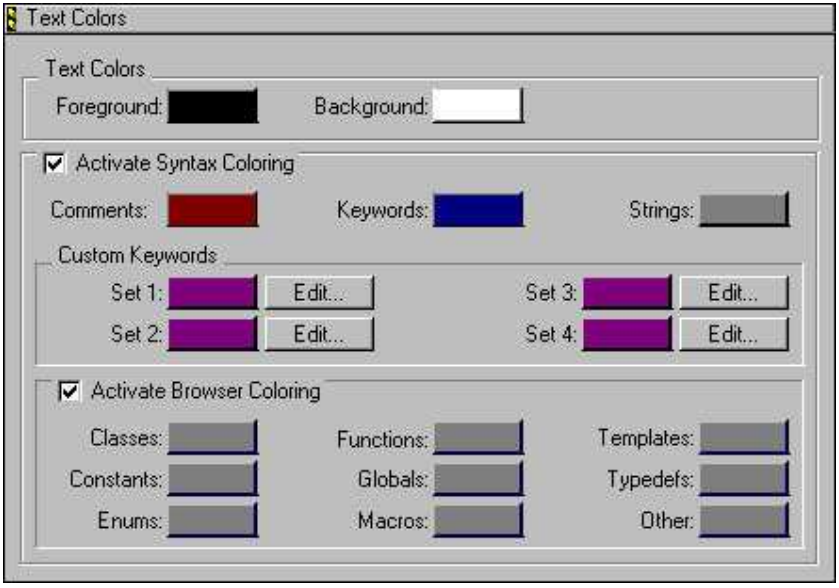


Table 19.13 Text Colors preference panel

Item	Explanation
Foreground on page 250	Click the color swatch to display a dialog box. Use the dialog box to set the foreground color used in editor windows for text.
Background on page 241	Click the color swatch to set the background color used in editor windows.
Activate Syntax Coloring on page 239	Select to apply custom colors to comments, keywords, strings, and custom keywords in text. Clear to use the **Foreground** color for all text.
Comments on page 243	Click the color swatch to set the color used for source-code comments.
Keywords on page 252	Click the color swatch to set the color used for source-code language keywords.
Strings on page 258	Click the color swatch to set the color used for source-code string literals.

Table 19.13 Text Colors preference panel (*continued*)

Item	Explanation
Set 1, Set 2, Set 3, Set 4	Click a color swatch to set the color used for the corresponding custom-keyword set.
Edit	Click to add, modify, or remove keywords from the corresponding custom-keyword set.
Activate Browser Coloring on page 239	Select to apply custom colors to browser symbols in text. Clear to use the **Foreground** color for all text.
Classes	Click the color swatch to set the color used for source-code classes.
Constants	Click the color swatch to set the color used for source-code constants.
Enums	Click the color swatch to set the color used for source-code enumerations.
Functions	Click the color swatch to set the color used for source-code functions.
Globals	Click the color swatch to set the color used for source-code global variables.
Macros	Click the color swatch to set the color used for source-code macros.
Templates	Click the color swatch to set the color used for source-code templates.
TypeDefs	Click the color swatch to set the color used for source-code type definitions.
Other	Click the color swatch to set the color used for other symbols not specified in the **Activate Browser Coloring** section.

Setting the Foreground Text Color

Use the **Foreground Color** option to configure the foreground text color displayed in editor windows.

1. Choose **Edit > Preferences**.
2. Select the **Text Colors** panel in the **Editor** group in the **IDE Preference Panels** list.

3. Click the **Foreground** color box to set the editor's foreground color.
4. Pick color.
5. Click **OK** in the **Color Picker** window.
6. Click **OK** or **Save**

   The foreground text color changes to the new color.

Setting the Background Text Color

Use the **Background Color** option to configure the background color displayed by all editor windows.

1. Choose **Edit > Preferences**.
2. Select the **Text Colors** panel in the **Editor** group in the **IDE Preference Panels** list.
3. Click the **Background** color box to set the editor's background color.
4. Pick color.
5. Click **OK** in the **Color Picker** window.
6. Click **OK** or **Save**

   The background text color changes to the new color.

Activate Syntax and Browser Coloring

Use the **Activate Syntax Coloring** and **Activate Browser Coloring** options to configure the syntax and browser colors that all editor windows display.

1. Choose **Edit > Preferences**.
2. Select the **Text Colors** panel in the **Editor** group in the **IDE Preference Panels** list.
3. Select the checkbox next to the **Activate Syntax Coloring** or the **Activate Browser Coloring** option.
4. Click on the colored box next to the option.
5. Pick color.
6. Click **OK** in the **Color Picker** window.
7. Click **OK** or **Save**

20

Working with Target Settings

This chapter explains core CodeWarrior™ IDE target settings panels and provides basic information on target settings options for the current project's build targets. Consult the *Targeting* documentation for information on platform-specific target settings panels.

This chapter contains these sections:

- Target Settings Window on page 225
- Target Panels on page 227
- Editor Panels on page 237

Abbreviated descriptions appear in this chapter. See "Preference and Target Settings Options" on page 239 for more information on target settings panel options.

Target Settings Window

The **Target Settings** window lists settings for the current project's build targets. These target settings supersede global preferences defined in the **IDE Preferences** window.

The Target Settings window lists settings by group:

- **Target**—configures overall build target settings, such as names, browser caching, file mappings, and access paths
- **Language Settings**—configures programming language settings. Consult the *Targeting* documentation for more information about these settings panels
- **Code Generation**—configures processor, disassembler, and optimization settings for generating code
- **Linker**—configure linker settings for transforming object code into a final executable file. Consult the *Targeting* documentation for more information about these settings panels.
- **Editor**—configure custom keyword sets and colors
- **Debugger**—configure settings for executable files, program suspension, and remote debugging

Figure 20.1 Target Settings window

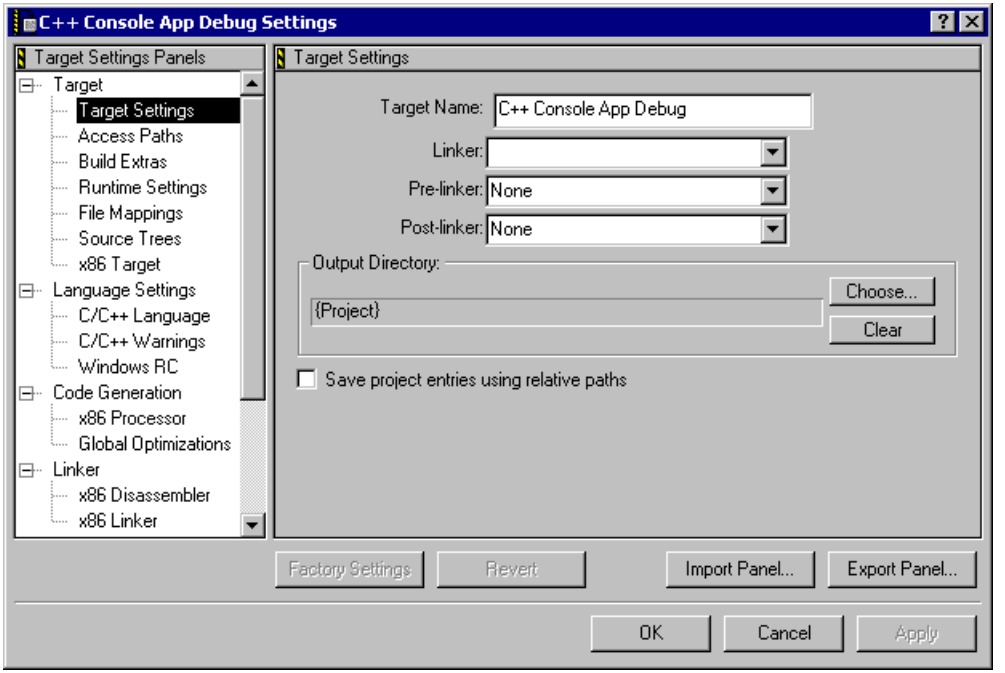


Table 20.1 Target Settings window

Item	Explanation
Target Settings Panels list	Lists settings panels, organized by group. Click the hierarchical control next to a group name to show or hide a list of individual settings panels.
Settings panel	Shows options for the selected item in the **Target Settings Panels** list.
Factory Settings on page 249	Click to restore the default options for the current settings panel.
Revert Panel on page 256	Click to restore the most recently saved options for the current settings panel.
Export Panel on page 246	Click to save an XML file that contains set options for the current panel.

Table 20.1 Target Settings window (*continued*)

Item	Explanation
Import Panel on page 251	Click to open an XML file that contains settings for the current panel.
OK	Click to save modifications to all settings panels and close the window.
Cancel	Click to discard modifications to all settings panels and close the window.
Apply	Click to confirm modifications to all settings panels.

Opening the Target Settings Window

Use the **Target Settings** window to modify build target options for the current project.

Choose **Edit > *targetname* Settings** to display the **Target Settings** window.

Target Panels

The **Target** group of the Target Settings Panels defines general target settings assigned to a new project.

The panels available on most IDE hosts include:

- Target Settings on page 227
- Access Paths on page 229
- Build Extras on page 232
- File Mappings on page 234
- Source Trees on page 237

Target Settings

The **Target Settings** panel provides options for:

- setting the name of the current build target
- setting the linker, pre-linker, and post-linker for the build target
- specifying the project output directory for the final output file

Figure 20.2 Target Settings panel

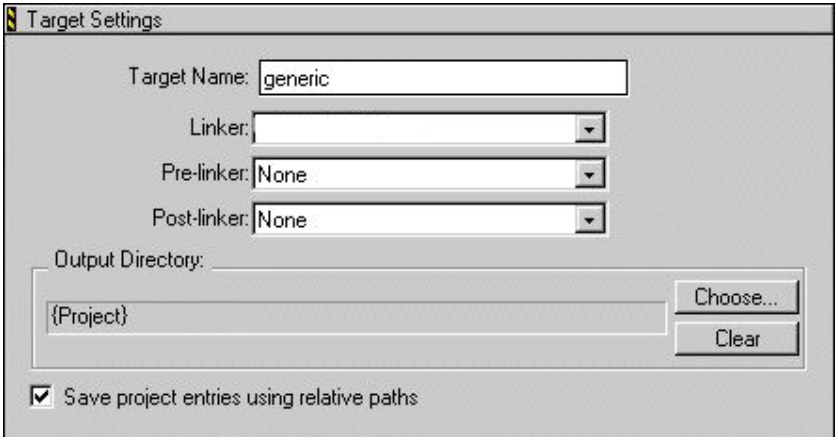


Table 20.2 Target Settings panel—items

Item	Explanation
Target Name on page 260	Enter a name (26 or fewer characters) for the selected build target as it will appear in the project window.
Linker on page 254	Select the linker to use on the current build target.
Pre-linker on page 255	Select the pre-linker to use on the current build target.
Post-linker on page 254	Select the post- linker to use on the current build target.
Output Directory on page 254	Shows the location where the IDE creates the output binary file. Click **Choose** to change this location.
Choose	Click to select the directory in which the IDE saves the output binary file.

Table 20.2 Target Settings panel—items (*continued*)

Item	Explanation
Clear	Click to delete the current **Output Directory** path.
Save project entries using relative paths on page 257	Select to save project file entries using a relative path from a defined access path. This option is helpful if the project has multiple files with the same name.

Access Paths

The **Access Paths** settings panel defines the search paths for locating and accessing a build target's system files and header files.

NOTE The Access Paths settings panel displays either User Paths or System Paths, depending on the selected radio button.

Figure 20.3 Access Paths settings panel

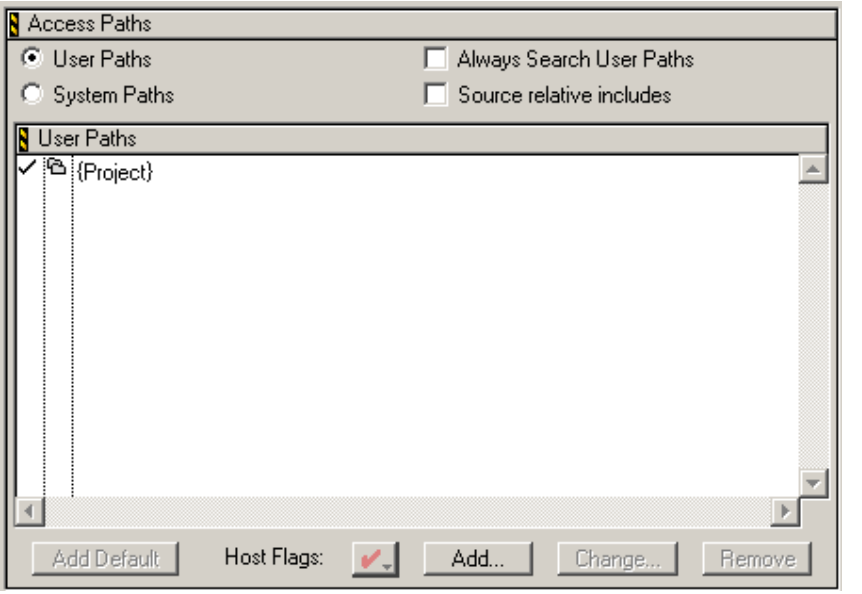


Table 20.3 Access Paths settings panel

Item	Explanation
Always Search User Paths on page 239	Select to treat `#include <...>` statements the same as `#include "..."` statements.
Source relative includes on page 258	Select to search for dependent files in the same location as the source file. If the dependent file is not found in this location, specified User and System paths are searched. If this option is enabled, the Always Search User Paths should also be enabled.
User Paths on page 262	The **User Paths** list shows currently defined user-level access paths searched by `#include "..."` statements.
System Paths on page 259	The **System Paths** list shows currently defined system-level access paths searched by `#include <...>` statements.

Table 20.3 Access Paths settings panel (*continued*)

Item	Explanation
Add Default on page 239	Click to restore the default user- and system-level access paths.
Host Flags on page 251 list pop-up	Choose the host platforms that can use the selected access path.
Add	Click to add a user- or system-level access path.
Change	Click to modify the selected user- or system-level access path.
Remove	Click to remove the selected user- or system-level access path.

The **User Paths** and **System Paths** lists display columns with status icons for each access path. There are different types of access paths. Table 20.4 on page 231 explains these items.

Table 20.4 User Paths and System Paths list columns

Name	Icon	Explanation
Search status	✓	A checkmark icon indicates an active access path that the IDE searches.
		No checkmark icon indicates an inactive access path that the IDE does not search.

Table 20.4 User Paths and System Paths list columns (*continued*)

Name	Icon	Explanation
Recursive search		A folder icon indicates that the IDE recursively searches subdirectories of the access path.
		No folder icon indicates that the IDE does not recursively search the access path.
Access path		Shows the full access path to the selected directory. Access paths have these types: • Absolute—the complete path, from the root level of the hard drive to the directory, including all intermediate directories • Project—the path from the project file relative to the designated directory • CodeWarrior—the path from the CodeWarrior IDE relative to the designated directory • System—the path from the operating system's base directory relative to the designated directory • Source tree—the path from a user-defined source tree relative to the designated directory

Build Extras

The **Build Extras** settings panel contains options that define how the CodeWarrior IDE builds a project.

Figure 20.4 Build Extras settings panel

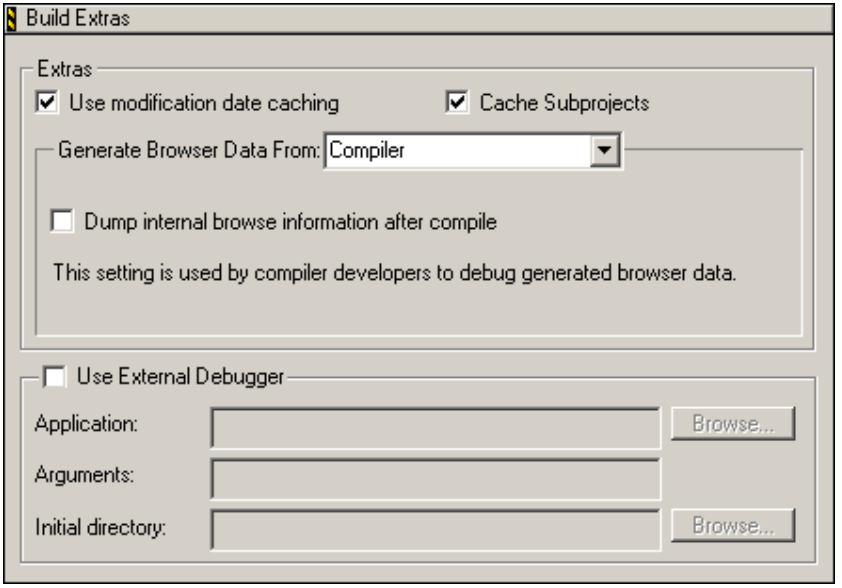


Table 20.5 Build Extras settings panel

Item	Explanation
Use modification date caching on page 261	Select to have the IDE cache modification date information and use that information each time it builds a target. Builds are faster if file modification dates are cached. Note that it is recommended to uncheck this option if you are using an external editor or using mounted directories. For one-time changes to files (for example, those updated by a VCS tool outside of the IDE or editing a file with an external editor), you should check the modification date by clicking the “Synchronize Modification Dates” button in the project window toolbar.
Cache Subprojects	Select to improve multi-project updating and linking speed.

Table 20.5 Build Extras settings panel (*continued*)

Item	Explanation
Generate Browser Data From on page 250	Choose whether the IDE generates browser data for the project, and the method by which the IDE generates that data.
Dump internal browse information after compile on page 245	Select to have the IDE dump raw browser information for viewing. This option appears after selecting **Compiler** from the **Generate Browser Data From on page 250** pop-up menu.
Prefix file	Enter the path to your project's prefix file. This options appears after selecting **Language Parser** from the **Generate Browser Data From on page 250** pop-up menu.
Macro file	Enter the path to your project's macro file. This options appears after selecting **Language Parser** from the **Generate Browser Data From on page 250** pop-up menu.
Application on page 240	Click **Browse** to select the external debugger application. Alternatively, enter the path to the external debugger.
Arguments on page 240	Enter any program arguments to pass to the external debugger when the IDE transfers control.
Initial directory on page 251	Click **Browse** to select an initial directory for the external debugger. Alternatively, enter the path to the initial directory.

File Mappings

The **File Mappings** settings panel associates filename extensions with a CodeWarrior plug-in compiler. These associations determine whether the IDE recognizes a source file by its filename extension or file type. Use the settings panel to add, change, and remove file mappings.

Figure 20.5 File Mappings settings panel

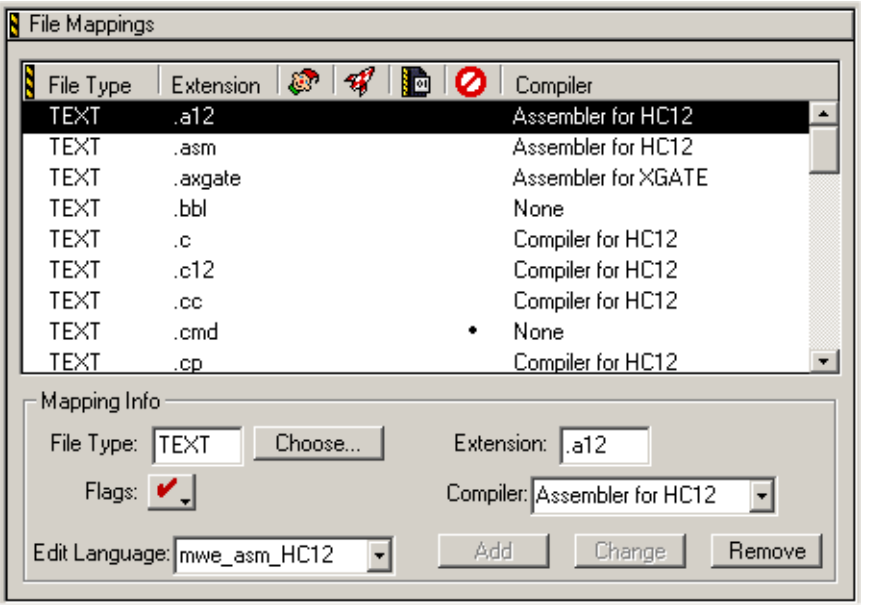


Table 20.6 File Mappings settings panel

Item	Icon	Explanation
File Mappings list		Displays a list of currently defined mappings between filename extensions and plug-in compilers.
File Type on page 249		Enter a file type (such as `TEXT`) for the file mapping. Alternatively, click **Choose** to set the file type by selecting an example file. This file type also appears in the corresponding column of the File Mappings list.
Extension on page 246		Enter the filename extension (such as `.cpp`) for the file mapping. This filename extension also appears in the corresponding column of the File Mappings list.
Resource File flag		A bullet in this column denotes a resource file. The IDE includes these resource files when building the final output file. Use the **Flags** pop-up menu to toggle this flag.

Table 20.6 File Mappings settings panel (*continued*)

Item	Icon	Explanation
Launchable flag		A bullet in this column denotes a launchable file. The IDE opens launchable files with the application that created them. Double-click launchable files from the Project window. Use the **Flags** pop-up menu to toggle this flag.
Precompiled File flag		A bullet in this column denotes a precompiled file. The IDE builds precompiled files before building other files. Use the **Flags** pop-up menu to toggle this flag.
Ignored By Make flag		A bullet in this column denotes a file ignored by the compiler during builds. For example, use this option to ignore text (`.txt`) files or document (`.doc`) files. Use the **Flags** pop-up menu to toggle this flag.
Compiler on page 243		Choose from this list the plug-in compiler to associate with the selected file mapping. This compiler selection also appears in the corresponding column of the File Mappings list.
Flags		Choose from this pop-up menu the desired flags for the selected file mapping. A checkmark indicates an active flag. Bullets appear in the corresponding columns of the File Mappings list to reflect flag states.
Edit Language on page 245		Choose from this list the desired language to associate with the selected file mapping. The IDE applies the appropriate syntax coloring for the selected language.
Add		Click to add the current File Type, Extension, Flags, Compiler, and Edit Language entries to the File Mappings list.
Change		Click to change the selected item in the File Mappings list to reflect the current File Type, Extension, Flags, Compiler, and Edit Language entries.
Remove		Click to remove the selected item in the File Mappings list.

Source Trees

The **Source Trees** settings panel in the Target Settings window defines project-specific root paths. These project-specific paths override the global root paths defined in the **Source Trees** preference panel of the IDE Preferences window. Refer to "Source Trees" on page 210 for information on adding, changing, or removing paths.

Editor Panels

The **Editor** group of the Target Settings Panels provides a single core panel for configuring custom keywords within a project.

Custom Keywords

The **Custom Keywords** panel configures as many as four keyword sets, each with a list of keywords and syntax coloring for a project. These project-specific settings supersede the global settings defined in the **Text Colors** preference panel of the IDE Preferences window.

Figure 20.6 Custom Keywords settings panel

Table 20.7 Custom Keywords settings panel—items

Item	Explanation
Keyword set 1, Keyword set 2, Keyword set 3, Keyword set 4	Click a color swatch to set the color used for the corresponding custom-keyword set.
Edit	Click to add, modify, or remove keywords from the corresponding custom-keyword set.

Adding a Keyword to a Keyword Set

To add a keyword to a keyword set, follow these steps:

1. Click **Edit** next to the desired keyword set.

   A dialog box appears. This dialog box lists the current collection of keywords in the keyword set.
2. Enter the new keyword into the field at the top of the dialog box.
3. Click **Add**.

   The new keyword appears in the keyword list.
4. Select **Case Sensitive** as desired.

   When selected, the IDE treats the case of each keyword in the keyword set as significant. When cleared, the IDE ignores the case of each keyword in the keyword set.
5. Click **Done**.

   The IDE saves the modified keyword set.

Removing a Keyword from a Keyword Set

To remove a keyword from a keyword set, follow these steps:

1. Click **Edit** next to the desired keyword set.

   A dialog box appears. This dialog box lists the current collection of keywords in the keyword set.
2. Select the obsolete keyword in the Custom Keywords list.
3. Press Backspace key.
4. Click **Done**.

   The IDE saves the modified keyword set.

21

Preference and Target Settings Options

Use this chapter to look up CodeWarrior™ IDE preference panel or target setting options and learn more about their capabilities. Option names are arranged in alphabetical order.

NOTE This chapter covers options for the core IDE preference or target setting panels described in this manual.

A

Activate Browser Coloring

Select this option to activate coloring of browser symbols in editor windows. Clear the option to apply the default text color to all symbols. Click the color swatch next to a symbol to modify its color.

Activate Syntax Coloring

Select this option to activate coloring of Comments, Keywords, Strings, and Custom Keyword Sets symbols in editor windows. Clear the option to apply the default text color to all symbols. Click the color swatch next to a symbol to modify its color.

Add Default

Click this button to restore the default user path or system path to the Access Paths panel.

Always Search User Paths

This option controls the search criteria the IDE uses to find system and user files.

- selected—the IDE treats searching for system files (such as `#include <...>`) the same as user files (`#include "..."`).

- disabled—the IDE treats system paths differently from user paths.

Application

In this field enter the path to the external debugger that the IDE uses in place of the CodeWarrior debugger. Alternatively, click **Browse** to open a dialog box. Use the dialog box to select the external debugger.

Arguments

In this field enter command-line arguments to pass to the external debugger at the beginning of a debugging session.

Attempt to show the dynamic runtime type of objects

Select this option to display runtime types for C++, Object Pascal, and SOM objects. Clear the option to display static types.

Auto Indent

Select this option to apply automatically the same indentation as the previous line for each new line of text created by pressing Enter or Return. Clear the option to always return to the left margin for each new line of text.

Auto Target Libraries

Select this option to have the IDE attempt to debug dynamically linked libraries (DLLs) loaded by the target application. The IDE debugs the DLLs that have symbolics information.

This option applies to non-project debugging sessions, such as debugging an attached process.

NOTE Selecting this option may slow IDE performance. Clear the option to improve speed.

Automatic Invocation

Select this option to have the Code Completion window automatically open after typing specific programming-language characters in the active editor window. Clear the option to manually open the Code Completion window.

The specific characters that trigger opening of the Code Completion window depend on the programming language that you use. For example, typing a period after a Java class opens the Code Completion window, allowing you to complete the class invocation.

You can change the time it takes for the Code Completion window to appear after you type a trigger character. If you perform any activity during this delay time, the Code Completion window is canceled.

See also:

- "Code Completion Delay" on page 242

B

Background

Click this color swatch to configure the background color of editor windows.

Balance Flash Delay

In this field enter the time, in ticks, to highlight a matching punctuation character during a **Balance while typing** check. Each *tick* represents 1/60th of a second (16.67 milliseconds).

Sample tick values include:

- 0 (zero)—disables balance flashing
- 30—the default flash value (1/2 of a second)
- 999—the maximum-flash delay value

Balance while typing

Select this option to have the editor check for balanced parentheses, brackets, and braces in editor windows. For each closing parenthesis, bracket, or brace, the editor attempts to find the opening counterpart.

The IDE behaves differently, depending on whether it finds the counterpart:

- Found—the editor window scrolls to display the matching character, then returns to the insertion point. The **Balance Flash Delay** option determines how long the editor displays the matching character.
- Not found—the IDE beeps.

Browser Commands

Select this option to add **Browser** menu commands to contextual menus. Clear the option to remove commands from the contextual menus.

Browser Path

In this field enter a path to the browser to use for viewing IDE online help. The Netscape Navigator® browser is the default application. The `PATH` environment variable specifies the path to the browser.

To change the default setting, or if the IDE cannot find Netscape Navigator, in the **Browser Path** field enter a path to an alternate browser. Alternatively, click **Set** to select the path.

Build before running

Choose from this pop-up menu the way in which the IDE handles project builds before running the compiled application:

- Always—always build projects before running them.
- Never—never build projects before running them.
- Ask—ask each time how to proceed.

C

Case sensitive

Select this option to have the IDE consider case when completing code. Clear the option to have the IDE ignore case.

The IDE can determine possible symbol matches according to case. For example, if you clear the **Case sensitive** option and type `str` in the active editor window, the IDE displays both `string` and `String` as possible matches. Selecting the option causes the IDE to display only `string` as a possible match.

Code Completion Delay

In this field enter the number of ticks to have the IDE wait from the time you type a trigger character to the time the Code Completion window opens. A tick is 1/60 of a second.

Performing any activity during this delay time cancels opening of the Code Completion window.

See also:

- "Automatic Invocation" on page 240

Collapse non-debugging windows

Select this option to collapse non-debugging windows when starting a debugging session. At the end of the debugging session, the IDE automatically restores the collapsed windows.

Comments

Select the **Activate Syntax Coloring** option in order to configure this option. Use this option to configure the color of C, C++, and Java comments displayed in editor windows. The IDE then uses the chosen color for comments placed between `/*` and `*/` or from `//` to the end of a line.

Click the color swatch next to Comments to set the color.

Compiler

Choose from this list pop-up the desired compiler for the selected **File Type** in the **File Mappings** list. Select **None** to not associate the selected file type with any compiler.

Compiler thread stack

In this field enter the maximum kilobytes of stack size for the IDE to allocate to compiling and linking thread support.

The IDE threads all build processes, with compiling and linking occurring on a thread separate from the main application thread. This setting controls the compiler-thread stack size.

To avoid frequent compiler crashes, such as when building very large or complex projects, increase the default compiler-thread-stack size.

Confirm invalid file modification dates

Select this option to keep track of source-file modification dates in a project. The IDE displays a warning message if the modification dates do not match. The message warns of possible discrepancies between object code and source code. Clear the option to prevent the IDE from displaying the warning message.

Context popup delay

In this field enter the minimum time, in ticks, to hold down the mouse button before IDE contextual menus appear. Each *tick* represents 1/60 of a second (16.67 milliseconds).

Sample tick values include:

- 0 (zero)—disables appearance of contextual menus
- 40—default popup delay value (2/3 of a second)
- 240—maximum popup delay value

D

Disable third party COM plugins

Select this option to prevent the IDE from loading third-party Component Object Model (COM) plugins. Clear the option to have the IDE load the plugins at start-up time.

Use this option to help troubleshoot problems with the IDE. If the problem goes away after disabling the plug-ins, then a conflict exists between the third-party plugins and the IDE plugins.

Display deprecated items

Select this option to have the Code Completion window display obsolete programming-language items. Clear the option to have the window hide the obsolete items.

Deprecated items appear in gray text in the Code Completion window.

Do nothing

Select this option to leave all windows in place during a debugging session.

Do nothing to project windows

Select this option to prevent the IDE from manipulating project windows when starting a debugging session. Use this option to help debug multiple build targets or multiple projects.

Documents

In this field enter the number of recent documents to display in the **Open Recent** submenu.

Drag and drop editing

Select this option to allow dragging and dropping of text in editor windows. Clear the option to disable drag-and-drop text editing.

Dump internal browse information after compile

Select this option to view the raw browser information that a plug-in compiler or linker provides for the IDE. Use this option to help develop plug-ins for use with the IDE.

NOTE After enabling the **Dump internal browse information after compile** option, compile only single files or small files. Compiling an entire project can create huge internal browser information for the IDE to display.

E

Edit Commands

Select this option to add **Edit** menu commands to IDE contextual menus. Clear the option to remove the commands from the contextual menus.

Edit Language

Choose from this pop-up menu the programming language to associate with the selected file mapping. The selected language determines the syntax-color scheme. For example, choose **C/C++** to apply the appropriate syntax-color scheme for C or C++ programming-language components.

Enable automatic Toolbar help

Select this option to display Balloon Help after resting the cursor over a toolbar button. Clear the option to prevent Balloon Help from appearing.

Enable Virtual Space

Use this option to configure the editor for handling spaces in different ways.

- selected—the editor allows moving the text-insertion point past the end of a line of text, using either the arrow keys or the mouse. After moving to the desired position, begin entering text. The editor automatically inserts spaces between the former end of the line and the newly entered text.
- cleared—the editor requires manual insertion of spaces to move past the end of a line of text.

Environment Settings

Use this section to specify environment variables to pass to your program as part of the environment parameter in your program's `main()` function, or as part of environment calls. These environment variables are only available to the target program. When your program terminates, the settings are no longer available.

NOTE The **Environment Settings** section appears only when you develop code for a Windows build target. The section does not appear for any other build target.

Export Panel

Click this button to save to an Extensible Markup Language (XML) file the current state of the active preference or settings panel.

Extension

In this field enter a filename extension, such as the `.c` or `.h`, for a selected File Type in the File Mappings list. Table 21.1 on page 247 lists default filename extensions.

Table 21.1 Default filename extensions

Type	Extension	Explanation
Minimum CodeWarrior Installation	.iSYM	CodeWarrior Intel® Symbols
	.mch	CodeWarrior Precompiled Header
	.mcp	CodeWarrior Project File
	.SYM	CodeWarrior Mac OS 68K Debug Symbols
	.xSYM	CodeWarrior Mac OS PPC Debug Symbols
	.dbg	CodeWarrior Debug Preferences
	.exp	Exported Symbol File
	.iMAP	CodeWarrior Link Map
	.MAP	CodeWarrior Link Map
Assembly	.a	Assembly Source File
	.asm	Assembly Source File
	.dump	CodeWarrior Disassembled File
C and C++	.c++	C++ Source File
	.cc	C++ Source File
	.hh	C++ Header File
	.hpp	C++ Header File
	.i	C Inline Source File
	.icc	C++ Inline Source File
	.m	Object C Source File
	.mm	Object C++ Source File

Table 21.1 Default filename extensions (*continued*)

Type	Extension	Explanation
Default C and C++	.c	C Source File
	.cp	C++ Source File
	.cpp	C++ Source File
	.h	C and C++ Header File
Default Java	.class	Java Class File
	.jar	Java Archive File
	.jav	Java Source File
	.java	Java Source File
Java	.JMAP	Java Import Mapping Dump
	.jpob	Java Constructor File
	.mf	Java Manifest File
Library	.a	(Static) Archive Library
	.lib	Library File
	.o	Object File
	.o	Object (Relocatable) Library or Kernel Module
	.obj	Object File
	.pch	Precompiled Header Source File
	.pch++	Precompiled Header Source File

F

Factory Settings

Click this button to change all modified options to their default values in the current preference or settings panel.

Failure

Choose from this pop-up menu a sound to play after a **Bring Up To Date** or **Make** operation fails.

File Type

Enter in this field the four-character file type for the selected file mapping in the **File Mappings** list.

Find and compare operations

A bullet in the **Find and compare operations** column, whose label appears at left, indicates that the IDE ignores matching folders for find-and-compare operations. Such operations include dragging a folder into fields in the **Find** window, or comparing folder contents.

Find Reference using

Choose from the **Find Reference using** options, an online browser application to look up references and definitions.

For example, use this option to look up documentation for language keywords:

1. Select an online browser application with the **Find Reference using** option.
2. Select a language keyword, such as `boolean`, in the source code.
3. Choose the **Find Reference** menu command. The IDE looks up reference information for the `boolean` keyword in the documentation.

Font

Choose from the **Font** options the typeface to use for displaying text in editor windows. This setting behaves in two different ways, depending on the current IDE state:

- No editor windows open—the setting modifies the default font. All editor windows take on the default font.
- Editor windows open—the setting modifies the font displayed in the frontmost editor window only. Other editor windows remain unaffected. The default font remains unchanged.

Font preferences

Select the **Font preferences** option to remember font settings for each file in a project. Clear the option to use the default font settings every time the IDE opens each file. The **Font & Tabs** preference panel defines the default settings.

Foreground

Use the **Foreground** option to configure the color of any text not affected by the **Activate Syntax Coloring** or **Activate Browser Coloring** options.

Click the color swatch to change the current color.

G-I

Generate Browser Data From

Choose from this pop-up menu whether the IDE generates browser data, and from what source it generates that data.

Choose from these possibilities:

- **None**—Disable browser-data generation. Certain IDE features that use browser data will be unable to work with the project, but the project's size will be smaller.
- **Compiler**—Have the IDE use the compiler to generate browser data. If you choose this option, you must Make the project in order to generate the browser data. The IDE uses the compiler assigned to the project to generate browser data during the build process.
- **Language Parser**—Have the IDE use the language parser to generate the browser data. Certain IDE features, such as C/C++ Code Completion, function more effectively if you choose this option. The IDE uses the language parser assigned to the project to generate browser data.

NOTE If you choose the **Language Parser** option, you can also have the IDE take into account your custom macro definitions. To do so, enter the path to your

prefix file in the **Prefix file** field and the path to your macro file in the **Macro file** field.

Grid Size X

In the **Grid Size X** field enter the number of pixels to space between markings on the x-axis of the Layout Editor grid.

Grid Size Y

In the **Grid Size Y** field enter the number of pixels to space between markings on the y-axis of the Layout Editor grid.

Host Flags

The **Host Flags** list pop-up defines the host platforms which can use the selected access path. The settings include:

- **None**–no host can use this access path.
- **All**–all hosts can use this access path.
- **Windows**–only use this path for Windows build targets.

Import Panel

Click **Import Panel** to load the contents of a previously saved Extensible Markup Language (XML) file into the active preference or settings panel.

Include file cache

Use the **Include file cache** option to specify the upper limit of kilobytes of memory used by the IDE for caching `#include` files and precompiled headers. The larger the value entered, the more memory the IDE uses to accelerate builds.

Initial directory

In this field enter the initial directory for use with the external debugger. Alternatively, click **Browse** to open a dialog box. Use the dialog box to select the initial directory.

Insert Template Commands

Select the **Insert Template Commands** option to display the **Insert Template** submenu in contextual menus. The submenu displays source-defined function templates. Clear to remove the submenu from the contextual menus.

NOTE Select the **Browser Commands** option in order to select the **Insert Template Commands** option. Otherwise, the **Insert Template Commands** state has no effect.

Interpret DOS and Unix Paths

This option determines how the IDE treats filenames for interface files:

- Selected—the IDE treats the backslash (`\`) and the forward slash (`/`) characters as subfolder separator characters. In the example

  ```
  #include "sys/socks.h"
  ```

  the IDE searches for a subfolder called `sys` that contains a `socks.h` file.
- Cleared—the IDE treats both the backslash and forward slash characters as part of the filename. Using the same example, the IDE now searches for a `sys/socks.h` filename.

K-L

Keywords

Use the **Keywords** option to configure the color of C, C++, and Java programming language's keywords displayed in editor windows when the **Activate Syntax Coloring** option is enabled. Coloring does not include macros, types, variables defined by system interface files, or variables defined in source code. Click the color swatch next to Keywords to set the color.

Launch Editor

Enter in the **Launch Editor** field a command-line expression that specifies the third-party text editor that the CodeWarrior IDE runs to edit text files.

The IDE expands the `%file` variable of the command-line expression into the full file path. For example, to run the Emacs text editor to edit text files, enter this command-line expression:

```
runemacs %file
```

Consult the documentation provided with the third-party text editor for more information about using command lines.

Launch Editor w/ Line

Enter in the **Launch Editor w/ Line #** field a command-line expression that specifies the third-party text editor that the IDE runs to edit text files, and an initial line of text that the third-party editor displays upon running.

The IDE expands the `%line` variable of the command-line expression into an initial line of text for the third-party text editor to display. For example, to run the Emacs text editor to edit a text file, and to have the Emacs editor display the line provided to it by the IDE, enter this command-line expression:

```
emacs %file %line
```

Consult the documentation provided with the third-party text editor for more information about using command lines.

Left margin click selects line

Select the **Left margin click selects line** option to use a right-pointing cursor, shown at left, to select entire lines of text from the left margin. Clear the option to disable use of the right-pointing cursor.

With the right-pointing cursor active, click in the left margin to select the current line, or click and drag along the left margin to select multiple lines.

Level

Choose from the **Level** options the amount of information reported for IDE plug-ins in development. This information is useful for diagnosing plug-in behavior or for viewing information about the properties of installed plug-ins.

Choose one of these levels of plug-in diagnostic information:

- **None** (default)—The IDE does not activate plug-in diagnostics or produce output.
- **Errors Only**—The IDE reports problems encountered while loading plug-ins. These problems appear in a new text file after the IDE starts up
- **All Info**—The IDE reports information for each installed plug-in, such as problems with plug-in loading, optional plug-in information, and plug-in properties. This information appears in a new text file after the IDE starts up. The text file also

contains a complete list of installed plug-ins and their associated preference panels, compilers, and linkers.

The IDE allows saving and printing the text file. Use the file as an error reference for troubleshooting plug-ins. The text file also provides suggestions for correcting general plug-in errors.

Linker

Use the **Linker** option menu to select the linker to use with the project. The choices available are always dependent on the plug-in linkers that are available to the CodeWarrior IDE.

To learn more about the linkers, see the appropriate *Targeting* manual.

O

Output Directory

Use the **Output Directory** caption to show the location the IDE places a final linked output file. The default location is the directory that contains your project file. Select **Choose** to specify the location path.

P

Play sound after ‘Bring Up To Date’ & ‘Make’

Select the **Play sound after ‘Bring Up To Date’ & ‘Make’** option to play a sound after a build operation completes. Choose different sounds for successful and unsuccessful builds using the **Success** and **Failure** pop-up options, respectively.

See also:

- “Failure” on page 249
- “Success” on page 259

Post-linker

Use the **Post-linker** option to select a post-linker that performs additional work (such as format conversion) on the final executable file.

For more information see the appropriate *Targeting* manual.

Pre-linker

Use the **Pre-linker** option to select a pre-linker that performs additional work on the object code in a project. This work takes place before the IDE links the object code into the final executable file.

For more information about the pre-linkers available, see the build targets *Targeting* manual.

Projects

Enter the number of recent projects to display in the **Open Recent** submenu.

Project Commands

Select the **Project Commands** option to add **Project** menu commands to contextual menus. Clear the option to remove the commands from the contextual menus.

Project operations

A bullet in the **Project operations** column, whose label appears at left, indicates that the IDE ignores matching folders for project operations. Such operations include dragging a folder into the Project window, building a project, or searching access paths after choosing **File > Open**.

R

Recommended

Select the **Recommended** option to allow the number of concurrent compiles suggested by the IDE. This suggestion takes into account the number of active Central Processing Units (CPUs) on the host computer.

Regular Expression

Enter in the **Regular Expression** field a text pattern to match against folder names. The IDE excludes matching folders and their contents from selected project operations or find-and-compare operations.

Relaxed C popup parsing

Use the **Relaxed C popup parsing** option to control the strictness of C coding conventions:

- Select the option to have the IDE recognize some non-standard functions that interfere with Kernighan-and-Ritchie conventions. The IDE displays the non-standard functions in the **Routine** list pop-up.
- Clear the option to have the IDE recognize only functions that conform to Kernighan-and-Ritchie conventions. The IDE displays only the standard functions in the **Routine** list pop-up.

For more information, refer to “Reference Manual,” of *The C Programming Language, Second Edition*, by Kernighan and Ritchie, published by Prentice Hall.

NOTE Toggle the **Relaxed C popup parsing** option to maximize recognition of functions, macros, and routine names in the source code.

Revert Panel

Click **Revert Panel** to revert all modified options in the current preference or settings panel to the values present when the panel was originally opened.

S

Save open files before build

Select the **Save open files before build** option to automatically save files during project operations:

- Preprocess
- Precompile
- Compile
- Disassemble
- Bring Up To Date
- Make
- Run

Save project entries using relative paths

Use the **Save project entries using relative paths** option to store the location of a file using a relative path from one of the access paths. The settings include:

- **enabled**–the IDE stores extra location information to distinctly identify different source files with the same name. The IDE remembers the location information even if it needs to re-search for files in the access paths.
- **disabled**–the IDE remembers project entries only by name. This setting can cause unexpected results if two or more files share the same name. In this case, re-searching for files could cause the IDE to find the project entry in a different access path.

Script

Choose from the **Scripts** options the script system (language) used to display text in editor windows. This setting behaves in two different ways, depending on the current IDE state:

- No editor windows open—the setting modifies the default script system. All editor windows take on the default script system.
- Editor windows open—the setting modifies the script system displayed in the frontmost editor window only. Other editor windows remain unaffected. The default script system remains unchanged.

Selection position

Select the **Selection position** option to remember these items for each editor window:

- visible text
- insertion-point location
- selected text

Clear the option to open each editor window according to default settings and place the insertion point at the first line of text.

NOTE The IDE must be able to write to the file in order to remember selection position.

Show Code and Data Sizes

Enable this option in the IDE Extras panel of the IDE preferences panels to display the Code and Data columns in the project manager window.

Show message after building up-to-date project

Select the **Show message after building up-to-date project** option to have the IDE display a message after building an up-to-date project.

Size

Choose from the **Size** options the font size used to display text in editor windows. This setting behaves in two different ways, depending on the current IDE state:

- No editor windows open—the setting modifies the default font size. All editor windows take on the default font size.
- Editor windows open—the setting modifies the font size displayed in the frontmost editor window only. Other editor windows remain unaffected. The default font size remains unchanged.

Strings

Use the **Strings** option to configure the color of anything that is not a comment, keyword, or custom keyword and displayed in editor windows when the **Activate Syntax Coloring** option is enabled. Sample strings include literal values, variable names, routine names, and type names.

Click the color swatch next to Strings to set the color.

Sort function popup

Select the **Sort function popup** option to sort function names by alphabetical order in list pop-ups. Clear the option to sort function names by order of appearance in the source file.

Source relative includes

Select to search for dependent files in the same location as the source file. If the dependent file is not found in this location, specified User and System paths are searched. If this option is enabled, the Always Search User Paths should also be enabled. For example, if the compiler is currently scanning the main source file and discovers an include header file statement, the header file is searched for in the same location as the main file. If not found, the specified access paths will be searched. If the header file declared in the main file also contains an include statement for another header file, it too will be searched for in the same sequence.

Success

Choose from the **Success** options a sound to play after a **Bring Up To Date** or **Make** operation succeeds.

Symbolics

Enter the number of recent symbolics files to display in the **Open Recent** submenu.

System Paths

Click the **System Paths** radio button to display the System Paths pane in the Access Paths preference panel.

T

Tab indents selection

Use the **Tab indents selection** option to control how the editor inserts tabs into the currently selected lines of text:

- Select the option so that pressing Tab causes the editor to insert tab characters in front of each selected line of text. The editor thereby indents the selected text.
- Clear the option so that pressing Tab causes the editor to replace selected text with a tab character. The editor thereby overwrites the selected text.

Tab Inserts Spaces

Select the **Tab Inserts Spaces** option to have the editor insert spaces instead of tab characters into text. Clear the option to have the editor use tab characters.

The **Tab Size** option determines the number of spaces inserted by the editor.

Tab Size

Enter in the **Tab Size** field the number of spaces to substitute in place of a tab character in text. This number applies to the **Tab Inserts Spaces** option.

Target Name

Use the **Target Name** text box to set or modify the name of the current build target. This name appears in the Targets view in the Project window. This name is not the name assigned to the final output file, that is set in the Linker panel for the build target.

Type

Choose from the **Type** options the desired source-tree path type:

- **Absolute Path**—This source-tree type is based on a file path.
- **Environment Variable**—This source-tree type is based on an existing environment-variable definition.
- **Registry Key**—This source-tree type is based on an existing Windows registry key entry.

U

Use default workspace

Select this option to have the IDE use the default workspace. The IDE uses the default workspace to save and restore window and debugging states from one session to the next.

For example, if you select this option and close the IDE with a project window visible onscreen, that project window reappears the next time you start the IDE.

Clear this option to have the IDE start with the same default state for each new session: no windows visible onscreen.

For example, if you clear this option and close the IDE with a project window visible onscreen, that project window does not appear the next time you start the IDE. Instead, the IDE always starts without opening any windows.

Use External Editor

Select the **Use External Editor** option to use an external text editor to modify text files in the current project. Clear the option to use the text editor included with the IDE.

Use Local Project Data Storage

Select the **Use Local Project Data Storage** option to store (on the host computer) data associated with a project file on a read-only volume. Clear the option to store project data inside the same folder as the project file itself.

After loading a project file, the IDE creates or updates an associated project data folder. The IDE stores intermediate project data in this folder. When building or closing a project, the IDE uses the information in the project data folder to update the project file.

By default, the IDE places the project data folder within the same folder as the project file. However, the IDE cannot create or update a project data folder in a location that grants read-only privileges.

If you are creating one project to be accessed by multiple users that are running CodeWarrior on separate machines, then each user should select this option to create a local data storage folder for the shared project. The folder containing the project file should be set to read-only. This will cause the target information to be stored locally on each user's machine, instead of inside a folder next to the project file.

Use modification date caching

Use the **Use modification date caching** option to determine whether the IDE checks the modification date of each project file prior to making the project. The settings include:

- **enabled**–the IDE caches the modification dates of the files in a project. At compilation time, the IDE refers to this cache to determine whether a specific file should be recompiled. This can shorten compilation time significantly for large projects.
- **disabled**–the IDE checks every file at each recompile of the project. Use this setting if using third-party editors to ensure that the IDE checks every file at compilation time.

Use Multiple Document Interface

Toggle this option to change the IDE interface:

- Selected—The IDE uses MDI (Multiple Document Interface). In this interface, the IDE uses a main application window with a gray background. IDE windows appear inside the main application window. The gray background obscures your view of the desktop.
- Cleared—The IDE uses FDI (Floating Document Interface). In this interface, the IDE does not use a main application window. You can see through the IDE user interface to your desktop. IDE windows appear above the desktop.

Use multiple undo

Select the **Use multiple undo** option to remember several undo and redo operations in editor windows. Clear the option to remember only the most recent undo or redo action.

The IDE stores undo and redo actions on a stack in first-in last-out (FILO) order, however, the stack size and capability are limited. For example, assume there are five undo actions on the stack (`ABCDE`). If the IDE redoes two actions (`ABC`), then performs a new action (`ABCF`), the undo events (`DE`) are no longer available.

Use Script menu

Select the **Use Script menu** option to display the **Scripts** menu in the IDE menu bar. Clear the option to remove the Scripts menu from the menu bar. The Scripts menu provides convenient access to IDE scripts.

For more information about scripting the IDE, refer to the *CodeWarrior Scripting Reference*.

Use Third Party Editor

Select the **Use Third Party Editor** option to use a third-party text editor to modify text files. Clear the option to use the text editor included with the IDE.

Enter in the **Launch Editor** and **Launch Editor w/ Line #** fields command-line expressions that specify information that the IDE passes to the third-party editor.

Consult the documentation provided with the third-party text editor for more information about using command lines.

See also:

- "Launch Editor" on page 252
- "Launch Editor w/ Line #" on page 253

Use ToolServer menu

Select the **Use ToolServer menu** option to display the **ToolServer** menu in the IDE menu bar. Clear the option to remove the ToolServer menu from the menu bar.

User Paths

Click this radio button to display the **User Paths** pane in the **Access Paths** preference panel.

User Specified

Select the **User Specified** option to stipulate the number of concurrent compiles to allow in the IDE. Enter the desired number in the text box beside the option.

NOTE The IDE accommodates a maximum of 1024 concurrent compiles. However, there is a point where the host system becomes compute-bound, and allowing more processes only adds overhead. For a single-processor system, the practical limit is approximately 12 concurrent compiles.

V

Value

The **Value** text box defines the value of the variable defined in the **Variable** text box that will be passed to a host application when control is transferred to it by the IDE.

Variable

The **Variable** text box defines the name of a variable to be passed to a host application when control is transferred to it by the IDE.

VCS Commands

Select the **VCS Commands** option to add **VCS** menu commands to contextual menus. Clear the option to remove the commands from the contextual menus.

Refer to the documentation that came with the version control system to learn about using it with the CodeWarrior IDE.

W-Z

Window follows insertion point

Select this option to have the Code Completion window follow the insertion point as you edit text in the active editor window. Clear the option to leave the Code Completion window in place.

Window position and size

Select the **Window position and size** option to remember the location and dimensions of each editor window. Clear the option to open each editor window according to default settings.

NOTE The IDE must be able to write to the file in order to remember window position and size.

Working Directory

Enter the path to the default directory to which the current project has access.

Workspaces

Enter the number of recent workspace files to display in the **Open Recent** submenu.

Zoom windows to full screen

Use the **Zoom windows to full screen** option to configure the behavior of the zoom box in the upper right-hand corner of all editor windows:

- Select the option to have the IDE resize a zoomed window to fill the entire screen.
- Clear the option to have the IDE resize a zoomed window to its default size.

VII

Menus

This section contains these chapters:

- IDE Menus on page 267
- Menu Commands on page 277

22

IDE Menus

This chapter provides an overview of CodeWarrior™ IDE menus and their commands. This chapter lists the IDE menus under each menu layout. For each menu, a table shows this information:

- **Menu command**—the name of each command in the menu.
- **Description**—a short description of each command.

This chapter has these sections:

- "Windows Menu Layout" on page 267

Windows Menu Layout

This section provides an overview of the menus and menu commands available in the **Windows** menu layout.

File Menu

The **File** menu contains commands for opening, creating, saving, closing, and printing source files and projects. The File menu also provides different methods for saving edited files.

Table 22.1 File menu commands

Menu command	Explanation
New Text File on page 291	Creates new empty text file.
New on page 290	Creates new projects using the New Project wizard or project stationery files.
Open on page 291	Opens source and project files for editing and project modification operations.
Find and Open File on page 286	Opens the file specified in the Find and Open File dialog or from the selected text in the active window.
Close on page 281	Closes the active window.

Table 22.1 File menu commands (*continued*)

Menu command	Explanation
Save on page 296	Saves the active file using the editor window's filename.
Save All on page 296	Saves all open editor windows.
Save As on page 296	Saves a copy of the active file under a new name and closes the original file.
Save A Copy As on page 296	Saves a copy of the active file without closing the file.
Revert on page 296	Discards all changes made to the active file since the last save operation.
Open Workspace on page 291	Opens a workspace that you previously saved.
Close Workspace on page 281	Closes the current workspace. (You cannot close the default workspace.)
Save Workspace on page 297	Saves the current state of onscreen windows, recent items, and debugging.
Save Workspace As on page 297	Saves an existing workspace under a different name.
Import Components on page 289	Imports the components from another catalog into the current catalog.
Close Catalog on page 281	Closes the current catalog and its associated Catalog Components window and Component Palette.
Import Project on page 289	Imports a project file previously saved in extensible markup language format (XML) and converts it into project file format.
Export Project on page 285	Exports the active project file to disk in extensible markup language (XML) format.
Page Setup on page 292	Displays the Page Setup dialog for setting paper size, orientation, and other printer options.
Print on page 292	Displays the Print dialog for printing active files, and the contents of Project, Message, and Errors & Warning window contents.

Table 22.1 File menu commands (*continued*)

Menu command	Explanation
Open Recent on page 291	Displays a submenu of recently opened files and projects that can be opened in the IDE.
Exit on page 284	Quits the CodeWarrior IDE.

Edit Menu

The **Edit** menu contains all customary editing commands, along with some CodeWarrior additions. This menu also includes commands that open the Preferences and Target Settings windows.

Table 22.2 Edit menu commands

Menu command	Explanation
Undo on page 302	Undoes the last cut, paste, clear, or typing operation. If you cannot undo the action, this command changes to **Can't Undo**.
Redo on page 293	Redoes the action of the last Undo operation. If you cannot redo the action, this command changes to **Can't Redo**.
Cut on page 283	Removes the selected text and places a copy of it on the Clipboard.
Copy on page 282	Copies the selected text and places a copy of it on the Clipboard.
Paste on page 292	Places the contents of the Clipboard at current insertion point or replaces the selected text.
Delete on page 283	Removes the selected text without placing a copy on the Clipboard.
Select All on page 297	Selects all text in current editor window or text box for cut, copy, paste, clear, or typing operations.
Balance on page 278	Selects text between the nearest set of parenthesis, braces, or brackets.
Shift Left on page 297	Moves selected text one tab stop to the left.

Table 22.2 Edit menu commands (*continued*)

Menu command	Explanation
Shift Right on page 298	Moves selected text one tab stop to the right.
Get Previous Completion on page 287	Shortcut for selecting the previous item that appears in the Code Completion window.
Get Next Completion on page 287	Shortcut for selecting the next item that appears in the Code Completion window.
Complete Code on page 282	Opens the Code Completion window.
Preferences on page 292	Opens the IDE Preferences window where you can set general IDE, editor, and layout options.
Target Settings on page 299 (the name changes, based on the name of the active build target)	Opens the project's Target Settings window where you can set target, language, code generation, linker, and editor options.
Version Control Settings on page 302	Opens the VCS Settings window to enable activation of a version control system and its relevant settings.
Commands & Key Bindings on page 281	Opens the Customize IDE Commands window where you can create, modify, remove menus, menu commands, and key bindings.

View Menu

The **View** menu contains commands for viewing toolbars, the class browser, the Message window, and other windows.

Table 22.3 View menu commands

Menu command	Explanation
Toolbars on page 301	Use the Toolbars menu to show, hide, reset, and clear window and main toolbars.
Project Inspector on page 292	Opens or brings to the front a Project Inspector window.
Browser Contents on page 279	Opens or brings to the front a Browser Contents window.

Table 22.3 View menu commands (*continued*)

Menu command	Explanation
Class Browser on page 280	Opens or brings to the front a New Class Browser window.
Class Hierarchy or Class Hierarchy Window on page 280	Opens or brings to the front a Class Hierarchy window.
Build Progress or Build Progress Window on page 279	Opens the Build Progress window.
Errors & Warnings or Errors & Warnings Window on page 284	Opens or brings to the front an Errors & Warnings window.
Processes or Processes Window	Opens or brings to the front a Processes window.
Expressions or Expressions Window	Opens or brings to the front an Expressions window. Use to view, create, modify, and remove expressions.
Global Variables or Global Variables Window	Opens or brings to the front a Global Variables window.

Search Menu

The **Search** menu contains commands for finding text, replacing text, comparing files, and navigating code.

Table 22.4 Search menu commands

Menu command	Explanation
Find on page 285	Opens the Find and Replace window for performing searches in the active editor window.
Replace on page 293	Opens the Find and Replace window for replacing text in the active editor window.
Find in Files on page 286	Opens the Find in Files window for performing searches in the active editor window.
Find Next on page 286	Finds the next occurrence of the find string in the active editor window.

Table 22.4 Search menu commands (*continued*)

Menu command	Explanation
Find In Next File on page 286	Finds the next occurrence of the find string in the next file listed in the Find window's File Set.
Enter Find String on page 284	Replaces the Find text box string with the selected text.
Find Selection on page 287	Finds the next occurrence of the selected text in the active editor window.
Replace Selection on page 294	Replaces the replace string in the Replace text box with the selected text.
Replace and Find Next on page 294	Replaces the selected text with the Replace text box string, then performs a Find Next operation.
Replace All on page 294	Finds all matches of the Find text box string and replaces them with the Replace text box string.
Find Definition on page 285	Searches for definition of the routine name selected in the active editor window using the project's source files.
Go Back on page 287	Returns to the previous CodeWarrior browser view.
Go Forward on page 288	Moves to the next CodeWarrior browser view.
Go to Line on page 288	Opens the Go To Line dialog where you can specify by line number where to position the text insertion point.
Compare Files on page 282	Opens the Compare Files Setup window where you can choose to compare folders or files and merge their contents.
Apply Difference on page 278	Adds, removes, or changes the selected text in the destination file to match the selected text in the source file.
Unapply Difference on page 302	Reverses the modifications made to the destination file by the Apply Difference command.

Project Menu

The **Project** menu contains commands for manipulating files, handling libraries, compiling projects, building projects, and linking projects.

Table 22.5 Project menu commands

Menu command	Explanation
Add Window on page 277	Adds the active window to the project.
Add Files on page 277	Opens a dialog box that you can use to add multiple files to the active project.
Create Group on page 283	Opens the Create Group dialog box that you can use to add a new file group to the active project. The new file group appears below the selected file or group.
Create Target on page 283	Opens the Create Target dialog box that you can use to add a new build target to the active project. The new build target appears below the selected build target.
Check Syntax on page 280	Checks the active editor window or selected files in the project window for compilation errors.
Preprocess on page 292	Preprocesses the active editor window or selected files in the project window and displays results in a new editor window.
Precompile on page 292	Precompiles the active editor window or selected files in the project window and stores results in a new header file.
Compile on page 282	Compiles the active editor window or selected files in the project window.
Disassemble on page 283	Disassembles the active editor window or selected files in the project window and displays results in a new editor window.
Bring Up To Date on page 279	Compiles all marked or modified files in the current build target of the active project.
Make on page 289	Compiles and links all marked or modified files in the current build target of the active project, saving the executable file.
Stop Build on page 298	Stops the current compile and linking operation and cancels the remainder of the build process.
Remove Object Code on page 293	Removes object code from one or more build targets in the project.
Re-search for Files on page 294	Resets the cached locations of source files using the project access paths, and stores them for faster builds and project operations.

Table 22.5 Project menu commands (*continued*)

Menu command	Explanation
Reset Project Entry Paths on page 295	Resets the location of all source files in the active project using the project access paths.
Synchronize Modification Dates on page 299	Updates the modification dates of all source files in the active project.
Run	Compiles and links all marked or modified files in the current build target of the active window, then runs the built executable file.
Set Default Project on page 297	Uses the Set Default Project menu to choose the default project when more than one project is open in the IDE.
Set Default Target on page 297	Uses the Set Default Target menu to choose the default build target when more than one build target is present in the project file.

Window Menu

The **Window** menu contains commands that manipulate IDE windows.

The menu lists the names of all open file and project windows. A checkmark appears beside the active window, and an underline indicates a modified and unsaved file.

Table 22.6 Window menu commands

Menu command	Explanation
Close on page 281	Closes the active window.
Close All on page 281	Closes all non-project windows.
Cascade on page 280	Arranges all editor windows so that only the title bar is visible.
Tile Horizontally on page 299	Tiles all editor windows horizontally on the screen so none overlap.
Tile Vertically on page 300	Tiles all editor windows vertically on the screen so none overlap.
Save Default Window on page 297	Saves the active browser windows settings and applies it to other browser windows as they are opened.

Help Menu

The **Help** menu contains commands for accessing the IDE's online help.

Table 22.7 Help menu commands

Menu command	Explanation
CodeWarrior Help on page 282	Launches a help viewer to display the online help. Click on a link to view a specific IDE topic.
Index	Launches a help viewer to display a glossary of common terms used in the CodeWarrior help and manuals.
Search	Launches a help viewer to a page for searching the CodeWarrior help and manuals.
Freescale Website on page 289	Launches a browser and automatically points you to the Freescale web site.
About Freescale CodeWarrior on page 277	Displays the CodeWarrior IDE version and build number information.

23

Menu Commands

This section presents an alphabetical listing of all available menu commands in the CodeWarrior™ IDE. Menu commands that appear only on certain host platforms are documented. A menu command that has no host information is available on all hosts.

Use this listing as a reference to find information about a specific menu command.

A

About Freescale CodeWarrior

This command displays the CodeWarrior IDE version and build number information.

TIP Click the **Installed Products** button in this window to view and save information about installed products and plug-ins for the CodeWarrior IDE. You can also use this window to enable or disable plug-in diagnostics.

Add Files

The **Add Files** command opens a dialog which allows one or more files to be added to the project.

Add Window

The **Add Window** command adds the file in the active Editor window to the open project. The name of the menu command changes, based on the name of the active window. For example, if the name of the active window is `MyFile`, the name of the menu command changes to **Add MyFile to Project**.

Align

Reveals the **Align** submenu with component alignment commands like Right Edges, Vertical Centers, and others.

See also:

- "Bottom Edges" on page 278
- "Horizontal Center" on page 288
- "Left Edges" on page 289
- "Right Edges" on page 296
- "To Grid" on page 300
- "Top Edges" on page 301
- "Vertical Center" on page 302

All Exceptions

The **All Exceptions** command of the **Java** submenu tells the debugger to break every time an exception occurs. This behavior includes exceptions thrown by the virtual machine, your own classes, the debugger, classes in `classes.zip`, and so on. Java programs throw many exceptions in the normal course of execution, so catching all exceptions causes the debugger to break often.

Anchor Floating Toolbar

The **Anchor Floating Toolbar** command attaches the floating toolbar beneath the menu bar. Once attached, the anchored toolbar can not be moved again until it is unanchored.

See also: "Unanchor Floating Toolbar" on page 301

Apply Difference

The **Apply Difference** command applies the selected difference from the source file into the destination file.

B

Balance

The **Balance** command selects all text starting at the current insertion point and enclosed in parentheses `()`, brackets `[]`, or braces `{}`,

Bottom Edges

The **Bottom Edges** command of the **Align** submenu aligns the bottom edges of the selected components.

Break

The **Break** command temporarily suspends execution of the target program and returns control to the debugger.

See also: "Stop" on page 298.

Break on C++ Exception

The **Break on C++ Exception** command tells the debugger to break at `__throw()` each time a C++ exception occurs.

Break on Java Exceptions

The **Break on Java Exceptions** command reveals the Java Exceptions submenu.

See also:

- "Exceptions in Targeted Classes" on page 284

Bring To Front

The **Bring To Front** command moves the selected objects so that they are displayed in front of all other objects.

Bring Up To Date

The **Bring Up To Date** command updates the current build target in the active project by compiling all of the build target's modified and touched files.

Browser Contents

The **Browser Contents** command opens the Browser Contents window. This command is not available if the Enable Browser option is not activated.

Build Progress or Build Progress Window

These commands open the Build Progress window. Use it to monitor the IDE's status as it compiles a project.

C

Cascade

The **Cascade** command arranges open editor windows one on top of another, with their window titles visible.

Check Syntax

The **Check Syntax** command checks the syntax of the source file in the active Editor window or the selected files in the open project window. If the IDE detects one or more errors, a Message window appears and shows information about the errors.

The **Check Syntax** command is not available if the active Editor window is empty or no project file is open.

Check Syntax does not generate object code.

Press Esc key to abort the syntax-checking process.

Class Browser

The **Class Browser** command opens a Class Browser window. This command is unavailable if the **Enable Browser** option is not enabled.

Class Hierarchy or Class Hierarchy Window

These commands open a Multi-Class Browser window. This command is unavailable if the **Enable Browser** option is not enabled.

Clear

The **Clear** command removes the selected text. This menu command is equivalent to pressing the Backspace or Delete key.

Clear Floating Toolbar

The **Clear Floating Toolbar** command removes all shortcut icons from the floating toolbar. Once the toolbar is cleared, drag shortcut icons from the Commands and Key Bindings window to the toolbar to create a custom floating toolbar.

Clear Main Toolbar

The **Clear Main Toolbar** command removes all shortcut icons from the main toolbar. Once the toolbar is cleared, drag shortcut icons from the Commands and Key Bindings window to the toolbar to create a custom main toolbar.

Clear Window Toolbar

The **Clear Window Toolbar** command removes all shortcut icons from the window toolbar. Once the toolbar is cleared, drag shortcut icons from the Commands and Key Bindings window to the toolbar to create a custom window toolbar.

Close

The **Close** command closes the active window.

Close All

The **Close All** command closes all open windows of a certain type. The name of this menu command changes, based on the type of item selected. For example, select one of several open editor windows, the menu command changes its name to **Close All Editor Documents**.

Close Catalog

The **Close Catalog** command closes the current catalog and removes the catalog from the Component Catalog window and the Component Palette.

Close Workspace

This command closes the current workspace.

You cannot close the default workspace, but you can choose whether to use it by toggling the **Use default workspace on page 260** option in the **IDE Extras on page 205** preference panel.

Commands & Key Bindings

The **Commands and Key Bindings** command opens the Customize IDE Commands window.

Complete Code

The **Complete Code** command opens the Code Completion window. Use this window to help you automatically complete programming-language symbols as you type them in the active editor window.

CodeWarrior Glossary

The **CodeWarrior Glossary** command opens and displays a list of vocabulary terms used by the CodeWarrior manuals and online help.

CodeWarrior Help

This command opens the online help for the CodeWarrior IDE.

Collapse Window

The **Collapse Window** command collapses the active window so that only its title is visible.

Compare Files

The **Compare Files** command opens the Compare Files Setup window. Use it to choose two files or folders for comparison and merging. After choosing the items, a comparison window appears that shows differences between the items.

Compile

The **Compile** command compiles selected source files into binary files. The IDE compiles source files that are:

- part of the current project and open in the active Editor window, or
- selected files, segments, or groups in a project window.

Copy

The **Copy** command copies selected text to the system Clipboard. If the Message Window is active, the Copy command copies all text in the Message Window to the Clipboard.

Copy to Expression

The **Copy to Expression** command copies the variable selected in the active pane to the Expressions window.

Create Design

This command creates a new design in the current project. The new design appears in the **Design** tab of the project window. You cannot create a design if each build target in the project already belongs to a design.

Create Group

The **Create Group** command creates a new group in the current project. This command is active when the **Files** view is visible in the project window.

Create Target

The **Create Target** command creates a new build target in the current project. This command is active when the **Targets** view is visible in the project window.

Cut

The **Cut** command copies the selected text to the system Clipboard, replacing the previous Clipboard contents, and removes it from the current document or text box.

D

Delete

The **Delete** command removes selected text without placing it on the system clipboard. This menu command is equivalent to pressing the Backspace or Delete key.

Disassemble

The **Disassemble** command disassembles the compiled source files selected in the project window. After disassembling a file, the IDE creates a `.dump` file that contains the file's object code. The `.dump` file appears in a new window after the IDE completes the disassembly process.

Display Grid

The **Display Grid** command toggles the visibility of grid lines in the layout window. When checked, the grid lines appear, otherwise, no grid is visible.

E

Enter Find String

The **Enter Find String** command copies selected text in the active window directly into the target search string. It will then appear in the **Find** text box of both the **Find and Replace** and **Find in Files** windows. Once done, use any of the find commands to search for matches without opening any Find-related windows.

Enter Replace String

The **Enter Replace String** command copies the selected text in the active window directly into the target search string. It will then appear in the **Replace with** text box of both the **Find and Replace** and **Find in Files** windows. Once done, use any of the find commands to search for matches without opening any Find-related windows.

Errors & Warnings or Errors & Warnings Window

These commands open the Errors and Warnings window.

Exceptions in Targeted Classes

The **Exceptions in Targeted Classes** command of the **Java** submenu instructs the debugger to break on exceptions thrown by your own classes in the project. Choose this command to break on exceptions thrown by your classes, rather than exceptions that Java programs throw in the normal course of execution.

Exit

The **Exit** command exits the CodeWarrior IDE immediately, provided that:

- all changes to the open editor files are already saved, or
- the open editor files are not changed.

If a Project window is open, the IDE saves all changes to the project file before exiting. If an Editor window is open and changes are not saved, the CodeWarrior IDE asks if you want to save your changes before exiting.

Expand Window

The **Expand Window** command expands a collapsed window (a window with only its title visible). Only available when a collapsed window is currently active.

Export Project

The **Export Project** command exports a CodeWarrior project to a file in XML format. The IDE prompts for a name and location to save the new XML file.

F

Find

The **Find** command opens the Find and Replace window to perform find operations within the active file.

Find Definition & Reference

The **Find Definition & Reference** command searches for the definition of the selected routine name in the active Editor window. Searching starts within the source files belonging to the open project. If the IDE does not find a definition, a system beep sounds.

If the IDE does not find the routine definition within the project files, searching continues, using the online help system specified in the **IDE Extras** preference panel.

Find Definition

The **Find Definition** command searches for the definition of the selected routine name in the active window. Searching occurs in the source files belonging to the open project. If the IDE finds the definition, the source file that contains the definition appears in an Editor window, and the routine name appears highlighted.

If the IDE finds more than one definition, a Message window appears warning of multiple definitions. If the IDE does not find a definition, a system beep sounds.

NOTE Select the **Activate Browser** option in the **Build Extras** target settings panel and re-compile the project in order to use the **Find Definition** command.

Find in Files

The **Find in Files** command opens the Find in Files window. This window allows you to perform find-and-replace operations across multiple files using specified search criteria.

Find In Next File

The **Find in Next File** command searches for the next occurrence of the **Find** text box string in the next file listed in the Find in Files window.

Find In Previous File

This command searches for the next occurrence of the **Find** text box string in the previous file listed in the Find in Files window.

Find Next

The **Find Next** command searches for the next occurrence of the Find text box string in the active window.

Find and Open File

The **Find and Open File** command opens the Find and Open File dialog. Enter a filename, click OK, and the IDE searches the current project access paths as specified in the Access Paths panel of the Target Settings window.

Find and Open ‘Filename’

The **Find and Open ‘Filename’** command opens an existing text file, using the currently selected text in the Editor window as the filename.

Find Previous

The **Find Previous** command searches for the previous occurrence of the user defined string in the active window.

Find Previous Selection

The **Find Previous Selection** searches for the previous occurrence of the selected text in the active editor window.

Find Reference

The **Find Reference** command searches for the definition of the selected routine name in the active Editor window, using the online help system specified in the **IDE Extras** preference panel.

If the IDE does not find a definition, a system beep sounds.

Find and Replace

The **Find and Replace** command opens the Find and Replace window. Use this window to perform find-and-replace operations within the active file.

Find Selection

The **Find Selection** command searches for the next occurrence of the selected text in the active Editor window.

G

Get Next Completion

The **Get Next Completion** command acts as a shortcut that bypasses using the Code Completion window. Instead of scrolling through the Code Completion window to select the next symbol from the one currently selected, use this command to insert that next symbol directly into the active editor window.

Get Previous Completion

The **Get Previous Completion** command acts as a shortcut that bypasses using the Code Completion window. Instead of scrolling through the Code Completion window to select the previous symbol from the one currently selected, use this command to insert that previous symbol directly into the active editor window.

Go Back

The **Go Back** command returns to the previous view in the CodeWarrior browser.

Go Forward

The **Go Forward** command moves to the next view in the CodeWarrior Browser (after you select **Go Back** command to return to previous view).

Go to Line

The **Go to Line** command opens the **Line Number** dialog box. Enter a specific line number to move the text-insertion point. If the line number specified exceeds the number of lines in the file, the text-insertion point moves to the last line in the file.

H

Hide Floating Toolbar

The **Hide Floating Toolbar** command conceals the IDE's floating toolbar. After concealing the floating toolbar, the command changes to **Show Floating Toolbar**.

Hide Main Toolbar

The **Hide Main Toolbar** command conceals the IDE's main toolbar. After concealing the main toolbar, the command changes to **Show Main Toolbar**.

Hide Window Toolbar

The **Hide Window Toolbar** command conceals the toolbar in the active window. After concealing the window toolbar, the command changes to **Show Window Toolbar**.

Horizontal Center

The **Horizontal Center** command of the **Align** submenu aligns the horizontal centers of the selected components.

I

Import Components

The **Import Components** command imports components from another catalog for use with the current catalog.

Import Project

The **Import Project** command imports project files previously saved in a XML file with the **Export Project** command.

K-L

Left Edges

The **Left Edges** command of the **Align** submenu aligns the left edges of the selected components.

M-N

Make

The **Make** command builds the selected project by compiling and linking its modified and touched files. The results of a successful build depends on the selected project type.

Maximize Window

Windows equivalent of Expand Window.

See also: "Expand Window" on page 285

Freescale Website

The **Freescale Website** command launches a web browser and displays the Freescale web site.

Minimize Window

Windows equivalent of Collapse Window.

See also: "Collapse Window" on page 282

New

The **New** command opens the **New** window. Use the **New** window to create new projects, files, components, and objects.

New Class

The **New Class** command opens the New Class wizard. Use this wizard to help create new classes in a project.

New Class Browser

The **New Class Browser** command opens a Browser window. The IDE grays out this menu command if the CodeWarrior browser is not activated. This menu command is equivalent to the **Class Browser** menu command.

New Data Member

The **New Data Member** command opens the New Data Member wizard. Use this wizard to help create new data members for a class.

New Event

The **New Event** command opens the New Event window. Use this window to help create new events for a selected class in a project.

New Event Set

The **New Event Set** command opens the New Event Set window to create a new event set for a selected class in a project.

New Member Function

The **New Member Function** command opens the New Member Function wizard. Use this wizard to help create new member functions for a class.

New Method

The **New Method** command opens the New Method window. Use this window to create a new method for a selected class in a project.

New Property

The **New Property** command opens the New Property window. Use this window to create a new property for a selected class in a project.

New Text File

The **New Text File** command creates a new editable text file and opens an editor window.

O

Open

The **Open** command opens an existing project or source file.

Open Recent

The **Open Recent** menu item reveals a submenu of recently opened projects and files. Choose a file from the submenu to open that item.

If two or more files in the submenu have identical names, the submenu shows the full paths to those files in order to distinguish between them.

Open Scripts Folder

This command opens the `(Scripts)` folder. This command is only available if the **Use Scripts menu** option is enabled.

Open Workspace

This command opens a workspace file that you previously saved.

P-Q

Page Setup

The **Page Setup** command sets the options used for printing CodeWarrior IDE files.

Paste

The **Paste** command replaces the selected text with contents of the system clipboard into the active Editor window or text box. If no text is selected, the IDE places the clipboard contents at the text-insertion point.

The **Paste** command is unavailable if the Message window is active.

Precompile

The **Precompile** command precompiles the text file in the active Editor window into a precompiled header file.

Preferences

The **Preferences** command opens the IDE Preferences window. Use this window to change the global preferences used by the CodeWarrior IDE.

Preprocess

This command preprocesses selected source files in any language that has a preprocessor, such as C, C++, and Java.

Print

The **Print** command prints CodeWarrior IDE files, as well as Project, Message, and Errors and Warnings window contents.

Project Inspector

Opens the Project Inspector window so that you can view information about your project. You can also use this window to manipulate file-specific information.

R

Redo

After undoing an operation, you can redo it. For example, after choosing the **Undo Typing** command to remove some text that you typed, you can choose **Redo Typing** to override the undo and restore the text.

You can enable the **Use multiple undo** option in the **Editor Settings** preference panel to allow greater flexibility with regard to **Undo** and **Redo** operations. After enabling this option, you can choose **Undo** multiple times to undo multiple actions, and you can **Redo** multiple times to redo multiple actions.

Refresh All Data

This command updates the data that appears in all windows.

Remove Object Code

The **Remove Object Code** command shows the Remove Object Code dialog box. Use this dialog box to remove binary object code from the active project, or to mark the project's files for re-compilation.

Remove Object Code & Compact

This command removes all binaries from the project and compacts it. Compacting the project removes all binary and debugging information and retains only the information regarding the files that belong to the project and project settings.

Remove Selected Items

The **Remove Selected Items** command removes the currently selected items from the Project window.

CAUTION You cannot undo this command.

Replace

The **Replace** command opens the Find and Replace dialog box. Use this dialog box to perform find-and-replace operations within the active file.

Replace All

The **Replace All** command finds all occurrences of the **Find** string and replaces them with the **Replace** string. If no text is selected in the active Editor window and there is no text in the **Find** text box, the IDE dims this menu command.

Replace and Find Next

This command substitutes selected text with text in the **Replace** text box of the Find window, and then performs a **Find Next** operation. If no text is selected in the active Editor window and there is no text in the Find field of the Find window, the IDE grays out this menu command.

Replace and Find Previous

This command substitutes selected text with the text in the **Replace** text box of the Find window, and then performs a **Find Previous** operation. If no text is selected in the active Editor window and there is no text in the Find field of the Find window, the IDE grays out this menu command.

Replace Selection

The **Replace Selection** command substitutes the selected text in the active window with the text in the **Replace** text box of the Find window. If no text is selected in the active Editor window, the IDE grays out the menu command.

This menu command replaces one instance of a text string without having to open the Find window. Suppose that you replaced all occurrences of the variable `icount` with `jcount`. While scrolling through your source code, you notice an instance of the variable `icount` misspelled as `icont`. To replace this misspelled variable with `jcount`, select `icont` and the **Replace Selection** menu command.

Re-search for Files

The **Project > Re-search for Files** command speeds up builds and other project operations, the IDE caches the location of project files after finding them in the access paths. **Re-search for Files** forces the IDE to forget the cached locations and re-search for them in the access paths. This command is useful if you moved several files and you want the IDE to find the files in their new locations.

If the **Save project entries using relative paths** option is enabled, the IDE does not reset the relative-path information stored with each project entry, so re-searching for files finds the source files in the same location (the exception is if the file no longer exists in the old location). In this case, the IDE only re-searches for header files. To force the IDE to also

re-search for source files, choose the **Project > Reset Project Entry Path**s menu command.

If the **Save project entries using relative paths** option is disabled, the IDE re-searches for both header files and source files.

Reset

The **Reset** command resets the program and returns control to the IDE.

Reset Floating Toolbar

The **Reset Floating Toolbar** command restores the default state of the floating toolbar. Use this command to return the floating toolbar to its original default settings.

Reset Main Toolbar

The **Reset Main Toolbar** command restores the default state of the main toolbar. Use this command to return the main toolbar to its original default settings.

Reset Project Entry Paths

The **Reset Project Entry Paths** command resets the location information stored with each project entry and forces the IDE to re-search for the project entries in the access paths. This command does nothing if the **Save project entries using relative paths** option is disabled.

Reset Window Toolbar

The **Reset Window Toolbar** command restores the default state of the toolbar in the active window. Use this command to return the toolbar to its original default settings.

Resize

The **Resize** command reveals the Resize submenu.

See also:

- "To Largest Height" on page 300
- "To Largest Width" on page 300
- "To Smallest Height" on page 301
- "To Smallest Width" on page 301

Restart

The **Restart** command terminates the current debugging session, then starts a new debugging session.

Restore Window

The **Restore Window** command restores a minimized window (a window reduced to an item in the task bar).

Revert

The **Revert** command restores the last saved version of the active Editor window.

Right Edges

The **Right Edges** command of the **Align** submenu aligns the right edges of the selected components.

S

Save

The **Save** command saves the contents of the active window to disk.

Save A Copy As

The **Save A Copy As** command saves the active window to a separate file. This command operates in different ways, depending on the active window.

Save All

The **Save All** command saves all currently open editor files.

Save As

The **Save As** command saves the contents of the active window to disk under a different name.

Save Default Window

This command saves the window settings, such as position and size, of the active Browser or Search Results window. The IDE applies the saved settings to subsequently opened windows.

Save Workspace

This command saves the current state of onscreen windows and recent items. Use the dialog box that appears to name the workspace and navigate to a location in which to store the workspace file.

Save Workspace As

This command saves a copy of an existing workspace. Use this command to save the workspace under a different name.

Select All

The **Select All** command selects all text in the active window or text box. This command is usually used in conjunction with other **Edit** menu commands such as Cut, Copy, and Clear.

Send To Back

The **Send To Back** command moves the selected window behind all other windows.

Set Default Project

The **Set Default Project** command sets a particular project as the default project when more than one project is open. This is the project that all commands are directed.

Set Default Target

The **Set Default Target** command allows you to specify a different build target within the current project. Choose the build target to work with from the submenu. This menu command is useful for switching between multiple build targets in a project and performing a build for each target.

Shift Left

The **Shift Left** command shifts the selected source code one tab to the left. The amount of shift is controlled by the **Tab Size** option.

Shift Right

The **Shift Right** command shifts the selected source code one tab to the right. The amount of shift is controlled by the **Tab Size** option.

Show Floating Toolbar

The **Show Floating Toolbar** command displays the IDE's floating toolbar. After displaying the floating toolbar, the command changes to Hide Floating Toolbar.

Show Main Toolbar

The **Show Main Toolbar** command displays the IDE's main toolbar. After displaying the main toolbar, the command changes to Hide Main Toolbar.

Show Types

The **Show Types** command displays the data types of all local and global variables that appear in the active variable pane or variable window.

Show Window Toolbar

The **Show Window Toolbar** command displays the toolbar in the active window. After displaying the window toolbar, the command changes to Hide Window Toolbar.

Stack Editor Windows

The **Stack Editor Windows** command arranges open editor windows one on top of another, with their window titles visible.

Stop

This command temporarily suspends execution of the target program.

Stop Build

The **Stop Build** command halts the build currently in progress.

Switch to Monitor

This command transfers control from the CodeWarrior debugger to an external third-party debugger.

Synchronize Modification Dates

The **Synchronize Modification Dates** command updates the modification dates stored in the project file. The IDE checks the modification date of each file in the project and marks (for recompiling) those files modified since the last successful compile process.

T-U

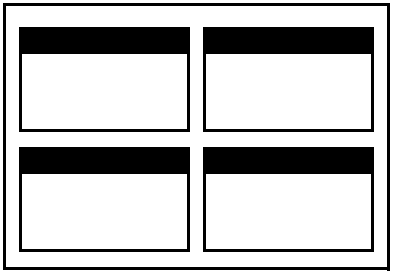
Target Settings

The **Target Settings** command displays the Target Settings window. This window contains settings panels used by the active build target. The name of the menu command changes, based on the name of the current build target. For example, if the name of the current build target is `ReleaseTarget`, the name of the menu command changes to **ReleaseTarget Settings**.

Tile Editor Windows

The **Tile Editor Windows** command arranges and resizes all open editor windows so that none overlap on the monitor.

Figure 23.1 Tile Editor windows—example



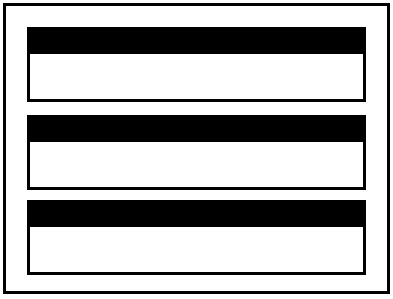
Tile Editor Windows Vertically

The **Tile Editor Windows Vertically** command resizes all open editor windows to be vertically long, and arranged horizontally across the monitor so that all are viewable.

Tile Horizontally

This command arranges open editor windows horizontally so that none overlap.

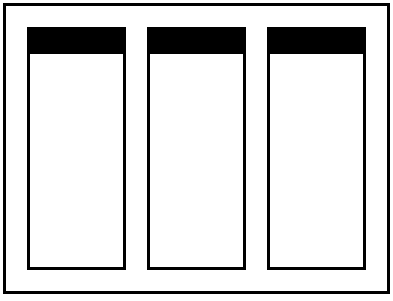
Figure 23.2 Tile horizontally—example



Tile Vertically

This command resizes open editor windows vertically and arranges them so that none overlap.

Figure 23.3 Tile vertically—example



To Grid

The **To Grid** command of the **Align** submenu aligns selected components to a grid in the layout. You can display or hide the on screen grid.

To Largest Height

The **To Largest Height** command of the **Resize** submenu resizes the selected components to match the height of the component with the largest height.

To Largest Width

The **To Largest Width** command of the **Resize** submenu resizes the selected components to match the width of the component with the largest width.

Toolbars

The **Toolbars** command reveals the Toolbars submenu.

See also:

- "Show Window Toolbar" on page 298
- "Hide Window Toolbar" on page 288
- "Reset Window Toolbar" on page 295
- "Clear Window Toolbar" on page 281
- "Show Main Toolbar" on page 298
- "Hide Main Toolbar" on page 288
- "Reset Main Toolbar" on page 295
- "Clear Main Toolbar" on page 281
- "Hide Floating Toolbar" on page 288
- "Show Floating Toolbar" on page 298
- "Reset Floating Toolbar" on page 295
- "Clear Floating Toolbar" on page 280

Top Edges

The **Top Edges** command of the **Align** submenu aligns the top edges of the selected components.

To Smallest Height

The **To Smallest Height** command of the **Resize** submenu resizes the selected components to match the height of the component with the smallest height.

To Smallest Width

The **To Smallest Width** command of the **Resize** submenu resizes selected components to match the width of the component with the smallest width.

Unanchor Floating Toolbar

The **Unanchor Floating Toolbar** command detaches the floating toolbar from beneath the menu bar.

Unapply Difference

The **Unapply Difference** command reverses the action of the **Apply Difference** command in a file-comparison window.

Undo

The **Undo** command reverses the last action. The name of this menu command changes based upon the editor settings as well as the most recent action. For example, after typing text in an open Editor window, the **Undo** command changes its name to **Undo Typing**. Choose the **Undo Typing** command to remove the typed text.

By default, only one undo or redo action is allowed. If the **Use multiple undo** option is enabled, undo and redo can act upon multiple actions.

Ungroup

The **Ungroup** command separates a selected group so that you can move each component independently.

V-Z

Version Control Settings

The **Version Control Settings** command opens the VCS Settings window.

Vertical Center

The **Vertical Center** command of the **Align** submenu aligns the vertical centers of the selected components.

View As Default

The **View As Default** command displays the selected variable in its default format, based on the variable's type.

View As Hexadecimal

The **View As Hexadecimal** command displays the selected variable as a hexadecimal value.

View Disassembly

This command changes the data view to show language disassembly.

View Memory

The **View Memory** command displays the contents of memory as a hexadecimal/ASCII character dump.

View Memory As

The **View Memory As** command displays the memory that a selected variable occupies or the memory to which a selected register points.

View Mixed

This command changes the data view to show source code intermixed with assembly code.

View Raw Data

This command changes the data view to show raw data (instead of formatting that data as source code, disassembly, or another format).

View Source

This command changes the data view to show source code.

View Variable

The **View Variable** command creates a separate window to display a selected variable.

Zoom Window

The **Zoom Window** command expands the active window to its previously set size. Choose **Zoom Window** a second time to return the window to its original size.

Index

Symbols

`#include` files, caching 251
`%file` command-line string 253
`%line` command-line string 253
`(Scripts)` folder 291
`.*[_]Data` 210
`.mcp` 29
`\(.*\)` 209
`__throw()` 279

A

about
    dockable windows 57
    Files page in Project window 39
    markers 98
    projects 25
    workspaces 67
About CodeWarrior menu command 277
Absolute Path option
    in Source Trees preference panel 260
    in Type list box 260
abstract, icon for 151
Access Filter display 153
Access Paths settings panel 208, 229
    columns
        Recursive Search 232
        Search Status 231
    options
        Add 231
        Add Default 231
        Always Search User Paths 230
        Change 231
        Host Flags 231
        Remove 231
        System Paths 259
        User Paths 262
Action option 185
Activate Browser Coloring option 239
    in Text Colors panel 250
Activate Browser option
    in Build Extras panel 285
Activate Syntax Coloring option 239, 243
    in Text Colors panel 250, 252, 258
activating automatic code completion 86
Add button 231
Add Default button 239
Add Files button 117
Add Files menu command 277
Add Window menu command 277
adding
    gray background behind IDE. *See* Use Multiple Document Interface, turning on.
    source trees 212
advanced topics
    for projects 32
Align submenu 277, 278, 288, 289, 296, 300, 301, 302
    Horizontal Center command 288
    Left Edges command 289
    Vertical Center command 296, 300, 301, 302
All Exceptions command 278
All Info option, in Plugin Diagnostics 253
All Text option button 105, 107, 110
alphabetical sorting of Functions list pop-up 96, 97
Always Search User Paths option 239
Ancestor pop-up 156
Anchor Floating Toolbar command 278
Appears in Menus 185, 186
Appears in Menus checkbox 121
Application field 240
Apply button 131
Apply Difference command 131, 278, 302
Arguments field 240
assigning
    Quote Key prefix 200
Attempt To Use Dynamic Type of C++, Object Pascal And SOM Objects option 240
Auto Indent option 240
Auto Repeat 185
Auto Target Libraries option 240
auto-complete code. *See* code completion.
Automatic Invocation option 240

Auto-target Libraries option 240

B

Background option 241
background, desktop
    removing from behind IDE. *See* Use Multiple Document Interface, turning on.
    seeing behind IDE. *See* Use Multiple Document Interface, turning off.
Balance Flash Delay option 241
    Editor Settings panel 241
Balance menu command 278
Balance While Typing option 241
balancing punctuation 84
    toggling 84
Balloon Help 245
Base Classes field 166
Bottom Edges command 278
boxes
    Destination 127
    Pane Collapse 133
    Pane Expand 133
    Source 127
Break menu command 279
Break On C++ Exception menu command 279
Break on Java Exceptions command 279
Bring To Front menu command 279
Bring Up To Date
    menu command 47
Bring Up To Date menu command 249, 279
Browse button 111
browser 140
    Class Browser window 143
    Classes pane 149
    collapsing panes 148
    creating new classes 149, 163, 164
    creating new data members 170
    creating new member functions 168, 169
    expanding panes 148
    hierarchy windows 156
    Member Functions pane 151
    overview 21
    printing class hierarchies 157
    purpose of 137
    setting options 137
    Source pane 152
    status area 153
    viewing data by contents 160
    viewing data by inheritance 156
    working with 137
Browser Access Filters 144
Browser Commands option 242
    Editor Settings panel 252
Browser Contents 144
Browser Contents command 279
Browser Contents window 159
    Symbols list 159
browser database
    defined 137
Browser menu 242
Browser Path option 242
Browser Wizard 163
Build Before Running option 242
Build Extras panel
    options
        Initial Directory field 251
        Use modification date caching 261
Build Extras settings panel 232
    options
        Application 234
        Arguments 234
        Cache Subprojects 233
        Dump internal browse information after compile 234
        Generate Browser Data From 234
        Initial directory 234
        Use modification date caching 233
Build Extras target settings panel 285
Build Progress menu command 279
Build Progress Window menu command 279
Build Settings panel
    options
        Include file cache 251
        Play sound after ‘Bring Up To Date’ & ‘Make’ 254
        Save open files before build 256
        Show message after building up-to-date project 258

Success 259
Use Local Project Data Storage 261
Build Settings preference panel 203
options
Build before running 204
Compiler thread stack 204
Save open files before build 204
Show message after building up-to-date project 204
Use Local Project Data Storage 204
build system
overview 21
build targets 27
configuring 50
creating 48
management 44
managing 48
moving 45
removing 44, 49
renaming 46, 50
setting default 49
strategies for 34
Button
Delete 191
Export 198
Import 199
New Binding 198
Save 192
buttons
Add 231
Add Default 239
Add Files 117
Apply 131
Browse 111
Cancel 104, 106
Change 231
Clear List 117
Compare 128
Edit 223
Export Panel 246
Factory Settings 249
Find 104, 106, 109
Find All 104, 109
Installed Products 277
Next Result 120
Previous Result 120
Redo 131
Remove 231
Remove a Set 117
Replace 106, 109
Replace All 106, 109
resetting in toolbars 195
Save This Set 117
Stop 109, 120
Unapply 131
Undo 131
Warnings 120
By Type text/list box 111

C

caching
`#include` files 251
precompiled headers 251
Can't Redo menu command 269
Can't Undo menu command 269
Cancel button 104, 106
Cancel button, in Remove Markers window 99
Cascade menu command 280
Case Sensitive checkbox 104, 107, 110, 127
Case Sensitive option 242
Change button 231
changing
find strings 121
line views in a hierarchical window 157
source trees 212
Check Syntax command 280
Checkbox
Numeric Keypad Bindings 197
checkboxes
Appears in Menus 121
Case sensitive 104, 107, 110, 127
Compare text file contents 128
Ignore extra space 127
Match whole word 104, 106, 110
Only show different files 128
Project headers 113
Project sources 113
Regular expression 104, 107, 110

Search cached sub-targets 113
Search selection only 105, 107
Search sub-folders 111
Search up 104, 107
Stop at end of file 104, 107
System headers 113
Checkout Status column
in Files view of Project window 40
child windows, defined 57
choosing
a default project 31
linkers 179
one character from many in regular expressions 124
class browser
purpose of windows 143
working with windows 143
Class Browser menu command 280
Class Browser window 143
Classes pane 145
Data Members pane 145
Member Functions pane 145
Status area 145
class data
viewing from hierarchy windows 148
Class Declaration 153
Class Hierarchy 144
Class Hierarchy menu command 280
Class Hierarchy Window menu command 280
class hierarchy windows
purpose of 155
working with 155
classes
creating 149, 163, 164
hiding pane for 150
showing pane for 150
sorting list of 150
Classes option 223
Classes pane 149
in Class Browser window 145
`classes.zip` 278
Clear Floating Toolbar command in Toolbar submenu 280
Clear List button 117
Clear Main Toolbar menu command 281
Clear menu command 280
Clear Window Toolbar command in Toolbar submenu 281
client area, defined 57
Clone Existing Target option 49
Close All command 54
Close All Editor Documents menu command 281
Close All menu command 281
Close Catalog menu command 281
Close command 32, 54
Close menu command 281
Close Workspace menu command 281
closing
all files 54
dockable windows 64
files 54
projects 32
workspaces 69
code
adding markers to 99
completing 85
locating 95
navigating 95
Code column
in Files view of Project window 40
code completion
activating automatic behavior 86
configuration 86
deactivating automatic behavior 87
for data members 91
for parameter lists 92
navigating window 90
selecting items 91
triggering by keyboard 87
triggering from IDE menu bar 86
Code Completion Delay option 242
Code Completion preference panel 213
options
Automatic Invocation 214
Case sensitive 214
Code Completion Delay 214
Display deprecated items 214
Window follows insertion point 214

Code Completion window 88
code completion, triggering from IDE menu bar 86
Code Formatting preference panel 215
options
Close Braces, Brackets, And Parentheses 217
Format Braces 216
Indent Braces 216
Indent Case Within Switch Statement 217
Indent Code Within Braces 216
Language Settings 215
Place Else On Same Line As Closing Brace 216
Place Opening Brace On Separate Line 216
Use Automatic Code Formatting 215
Code Only option button 105, 107, 110
CodeWarrior
menu reference 267
overview 17
CodeWarrior Glossary command 282
CodeWarrior Help menu command 282
CodeWarrior IDE
Edit menu 269
File menu 267
Help menu 275
Project menu 272
Search menu 271
Window menu 270, 274
CodeWarriorU.com 14
Collapse Non-debugging Windows option 243
Collapse Window menu command 282
collapsing
browser panes 148
dockable windows 64
COM 244
Command Actions
Arguments 187
Defining (Windows) 187
Directory 187
Execute 187
Command Group
Delete 191
Command Groups 191
Delete 191
Commands
Import 199
Modify 185
commands 150
About CodeWarrior 277
Add Files 277
Add Window 277
Apply Difference 131, 278
Balance 278
Bottom Edges 278
Break 279
Break On C++ Exception 279
Break on Java Exceptions 279
Bring To Front 279
Bring Up To Date 279
Browser Contents 144, 279
Build Progress 279
Build Progress Window 279
Can't Redo 269
Can't Undo 269
Cascade 280
Check Syntax 280
Class Browser 280
Class Declaration 153
Class Hierarchy 144, 280
Class Hierarchy Window 280
Clear 280
Clear Main Toolbar 281
Close 32, 281
Close All 281
Close All Editor Documents 281
Close Catalog 281
Close Workspace 281
CodeWarrior Glossary 282
CodeWarrior Help 282
Collapse Window 282
Commands & Key Bindings 281
Compare Files 128, 282
Compile 282
Complete Code 282
Copy 282

Copy To Expression 282
Create Design 283
Create Group 283
Create Target 283
Cut 283
Delete 283
Diagonal Line 157
Disassemble 283
Display Grid 283
Enter Find String 121, 284
Enter Replace String 284
Errors And Warnings 284
Errors And Warnings Window 284
Exit 284
Expand Window 285
Export Project 31, 285, 289
Find 105, 285
Find and Open 'Filename' 286
Find and Open File 286
Find And Replace 287
Find Definition 285
Find Definition & Reference 285
Find In Files 286
Find In Next File 286
Find In Previous File 286
Find Next 121, 286
Find Previous 121, 286
Find Previous Selection 286
Find Reference 287
Find Selection 122, 287
Freescale Website 289
Get Next Completion 287
Get Previous Completion 287
Go Back 144, 287
Go Forward 144, 288
Go To Line 288
Hide Classes 150
Hide Classes pane 153
Hide Window Toolbar 288
Import Components 289
Import Project 32, 289
Make 289
Maximize Window 289
Minimize Window 290
New 290
New Class 290
New Class Browser 290
New Data 290
New Event 290
New Event Set 290
New Item 149
New Member Function 290
New Method 291
New Property 291
New Text File 291
Open 291
Open File 152
Open In Windows Explorer 41
Open Recent 291
Open Scripts Folder 291
Open Workspace 291
Page Setup 292
Pane Collapse 148
Pane Expand 148
Precompile 292
Preferences 292
Print 292
Project Inspector 30
Redo 293
Refresh All Data 293
Remove Object Code 293
Remove Object Code & Compact 293
Remove Toolbar Item 195
Replace 107, 293, 294
Replace All 294
Replace and Find Next 294
Revert 296
Save Default Window 297
Save Workspace 297
Save Workspace As 297
Select All 297
Send To Back 297
Set Default Project 31, 297
Set Default Target 297
Shift Right 297, 298
Show Classes 150
Show Classes pane 153
Show Inherited 145

Show private 146
Show protected 146
Show public 146
Show Types 298
Show Window Toolbar 288
Single Class Hierarchy Window 144
Sort Alphabetical 149, 150
Sort Hierarchical 149
Stack Editor Windows 298
Stop Build 298
Straight Line 157
Switch To Monitor 298
Synchronize Modification Dates 299
Unapply Difference 132
View as implementor 146
View as subclass 146
View As Unsigned Decimal 302
View as user 146
View Disassembly 303
View Mixed 303
View Source 303
View Variable 303
Zoom Window 303
Commands & Key Bindings menu command 281
Commands tab 183, 185, 196
Commands&KeyBindings.mkb file 199
Comments Only option button 105, 107, 110
Comments option 243
Compare button 128
Compare Files command 128
Compare Files menu command 282
Compare Files Setup window 126
Case Sensitive checkbox 127
Compare button 128
Compare Text File Contents checkbox 128
Destination box 127
Ignore Extra Space checkbox 127
Only Show Different Files checkbox 128
Source box 127
Compare Text File Contents checkbox 128
comparing files
differences, applying 131
differences, unapplying 132
overview 126
setup 126, 128
comparing files, explained 130
comparing folders
examining results 134
overview 126
setup 126, 129
comparing folders, explained 132
comparison
destination item 126
source item 126
Compile menu command 282
compiler
avoiding crashes 243
Compiler option 243
Compiler option, in Generate Browser Data From menu 250
compiler thread stack
and avoiding compiler crashes 243
Compiler Thread Stack field 243
Complete Code menu command 282
completing code 85
Component Object Model. *See* COM.
Concurrent Compiles panel
options
Use Concurrent Compiles 255
User Specified 263
Concurrent Compiles preference panel 204
options
Recommended 205
Use Concurrent Compiles 205
User Specified 205
configuring
build targets 50
code completion 86
targets 50
Confirm Invalid File Modification Dates When Debugging option 243
Constants option 223
Context Popup Delay option 244
contextual menus
Open In Windows Explorer command 41
using to dock a window 60
conventions
figures 15

for manual 15
keyboard shortcuts 16
Copy menu command 282
Copy To Expression command 282
Create Design menu command 283
Create Group menu command 283
Create Target command 48
Create Target menu command 283
creating
a new data member 152
build targets 48
custom project stationery 33
files (Windows) 51
member functions 151
new classes 149, 163, 164
new data member 169
new data members 170
new member function 168
new member functions 168
projects using stationery 29
subprojects 34
targets 48
cross-platform migration, and opening projects 30
Current Target list pop-up 38
Current Target menu 195
custom project stationery 32
Customize IDE Commands window 121, 183, 196, 197
Action 185
Appears in Menus 185, 186
Appears in Menus checkbox 121
Auto Repeat 185
Key Bindings 185
Name field 185
New Binding 185
New Group 186
Numeric Keypad Bindings checkbox 200
Cut command 283
CVS 210

D

Data column
in Files view of Project window 40
data members
completing code 91
creating 152, 170
identifier icons 151
Data Members pane 151
in Class Browser window 145
database
navigation for browser 140
deactivating automatic code completion 87
Debug column
in Files view of Project window 40
Debug command 47
debugger
overview 21
Declaration File field 165
default filename extensions 247
default projects 31
default size and position of windows, setting 297
default target, setting 49
default workspace
definition of 67
using 67
definition
of child windows 57
of client area 57
of default workspace 67
of dock 57
of IDE 13
of non-modal 59
of project 25
of regular expression 122
of symbols 100
of touch 40
of workspace 67
Delete menu command 283
Design view 45
Designs view 31
desktop background
removing from behind IDE. *See* Use Multiple Document Interface, turning on.
seeing behind IDE. *See* Use Multiple Document Interface, turning off.
Destination box 127
destination item, for comparison 126

Destination pane 131
development-process cycle for software 17
diagnostics
disabling for plug-ins 277
enabling for plug-ins 277
Diagonal Line 157
difference from Single-Class Hierarchy window 158
Differences pane 131
Disable Third Party COM Plugins option 244
disabling
plug-in diagnostics 277
Disassemble menu command 283
disclosure triangles
Source Code pane 120
Display Deprecated Items option 244
Display Grid menu command 283
DLL 240
Do Nothing option 244
Do Nothing To Project Windows option 244
dock bars 63
dock, defined 57
dockable windows 57, 59
about 57
closing 64
collapsing 64
dock bars 63
docking windows of the same kind 60
expanding 64
moving 64
suppressing 63
turning off 63
types 58
Document Settings list pop-up 76
Documents option
IDE Extras panel 245
Done button, in Remove Markers window 99
drag and drop
using to dock a window 60
Drag And Drop Editing option 245
Dump Internal Browse Information After Compile option 245
dump memory 303

E

Edit button 223
Edit Commands option 245
Edit Language option 245
Edit menu 245, 269
editing
source code 81
symbols, shortcuts for 83
editor 73
overview 20
third-party support 262
Editor section, of IDE preference panels 213
Editor Settings panel
options
Balance Flash Delay 241
Browser Commands 252
Font Preferences 250
Insert Template Commands 252
Left margin click selects line 253
Project Commands 255
Relaxed C popup parsing 256
Selection position 257
Sort function popup 258
Use multiple undo 262
VCS Commands 263
Window position and size 264
Editor Settings preference panel 217
options
Balance Flash Delay 219
Balance while typing 219
Browser Commands 218
Default file format 219
Drag and drop editing 219
Edit Commands 218
Enable Virtual Space 219
Font preferences 218
Left margin click selects line 219
Project Commands 218
Relaxed C popup parsing 219
Selection position 218
Sort function popup 219
Use multiple undo 219
VCS Commands 219
Window position and size 218

editor toolbar 75
editor window 73
adding panes to 78
collapsing toolbar in 76
expanding toolbar in 76
line and column indicator 78
pane splitter controls 78
removing panes from 79
resizing panes 78
text editing area 78
editor windows
other 77
selecting text in 81
Emacs text editor 253
Empty Target option 49
Enable Automatic Toolbar Help option 245
Enable Browser option 279
Enable Virtual Space option 246
enabling
plug-in diagnostics 277
enlarging panes, in browser 148
Enter Find String command 121
Enter Find String menu command 284
Enter Replace String menu command 284
Enums option 223
Environment Settings option 246
Environment Variable option
of Source Trees preference panel 260
Environment Variable option, in Type pop-up menu 260
Errors And Warnings menu command 284
Errors And Warnings Window menu command 284
Errors Only option
of Plugin Diagnostics 253
Exceptions In Targeted Classes command in Java Exceptions submenu 284
Exit menu command 284
Expand Window menu command 285
expanding
browser panes 148
dockable windows 64
Export 198
Export Panel button 184, 202, 246
Export Project command 31
Export Project menu command 285, 289
exporting
projects to XML files 31
Extension field 246
external editor support 262

F

Factory Settings button 249
Failure option 249
FDI 207, 261
and dockable windows 57
fields
Application 240
Arguments 240
Base Classes 166
Compiler thread stack 243
Declaration File 165
Extension 246
File Type 249
Relative to class 165
figure conventions 15
File
Commands&KeyBindings.mkb 199
File column
in Files view of Project window 40
`%file` command-line string 253
File Compare Results window 130
Apply button 131
Destination pane 131
Differences pane 131
pane resize bar 131
Redo button 131
Source pane 131
Unapply button 131
Undo button 131
File list 113
file management 44
File Mappings list 243
File Mappings settings panel 234
options
Add 236
Change 236
Compiler 236

Edit Language 236
Extension 235
File Mappings list 235
File Type 235
Flags 236
Ignored By Make flag 236
Launchable flag 236
Precompiled File flag 236
Remove 236
Resource File flag 235
File menu 267
file modification icon 77
file paths
viewing 41
File Set list 117
File Set list box 117
File Type field 249
File Type option 243
filename extensions
default settings 247
files
close all 54
closing 54
comparing 130
creating (Windows) 51
destination (for a comparison) 126
inspecting 30
moving 45
opening 52
print selections 55
printing 55
renaming 46
replacing text in 107
reverting 55
save all 53
saving 53
saving copies 54
searching (multiple) 118
searching (single) 105
source (for a comparison) 126
touching 47
touching all 47
untouching 47
untouching all 48
working with 51
Files In Both Folders pane 134
Files Only In Destination pane 134
Files Only In Source pane 134
Files page, about 39
Files tab 44
Files view 31, 45, 48
Checkout Status column 40
Code column 40
Data column 40
Debug column 40
File column 40
Interfaces list pop-up 40
Sort Order button 40
Target column 40
Touch column 40
files, tasks for managing 51
Find
by text selection 120
single-file 103
Find All button 104, 109
Find and compare operations option
Shielded Folders panel 249
Find And Open ‘Filename’ menu command 286
Find and Open File command 286
Find and Replace
multiple-file 108
single-file 105
Find And Replace menu command 287
Find and Replace window
All Text option button 107
Cancel button 106
Case Sensitive checkbox 107
Code Only option button 107
Comments Only option button 107
Find button 106
Find text/list box 106
Match Whole Word checkbox 106
Regular Expression checkbox 107
Replace All button 106
Replace button 106
Replace With text/list box 106
Search Selection Only checkbox 107
Search Up checkbox 107

Stop At End Of File checkbox 107
Find button 104, 106, 109
Find command 105, 285
Find Definition & Reference menu command 285
Find Definition menu command 285
Find In Files menu command 286
Find in Files window
All Text option button 110
Case Sensitive checkbox 110
Code Only option button 110
Comments Only option button 110
Find All button 109
Find button 109
Find text/list box 109
In Files page 117, 118
Add Files button 117
Clear List button 117
File Set list 117
File Set list box 117
Remove A Set button 117
Save This Set button 117
In Files tab 110
In Folders page 111
Browse button 111
By Type text/list box 111
Search In text/list box 111
Search Sub-Folders checkbox 111
In Folders tab 110
In Projects page 112, 114
File list 113
Project Headers checkbox 113
Project list box 113
Project Sources checkbox 113
Search Cached Sub-Targets checkbox 113
System Headers checkbox 113
Target list box 113
In Projects tab 110
In Symbolics page 115
Symbolics list 115
Symbolics list box 115
In Symbolics tab 110
Match Whole Word checkbox 110
Regular Expression checkbox 110
Replace All button 109
Replace button 109
Replace With text/list box 109
Stop button 109
Find In Next File menu command 286
Find In Previous File menu command 286
Find Next
using 121
Find Next command 121
Find Next menu command 286
Find Previous
using 121
Find Previous command 121
enabling in the Customize IDE Commands window 121
Find Previous menu command 286
Find Previous Selection menu command 286
Find Reference menu command 287
Find Reference using option
IDE Extras panel 249
Find Selection command 122
Find Selection menu command 287
Find symbols with prefix 84
Find symbols with substring 84
Find text/list box 104, 106, 109
Find window
All Text option button 105
Cancel button 104
Case Sensitive checkbox 104
Code Only option button 105
Comments Only option button 105
Find All button 104
Find button 104
Find text/list box 104
Match Whole Word checkbox 104
Regular Expression checkbox 104
Search Selection Only checkbox 105
Search Up checkbox 104
Stop At End Of File checkbox 104
finding text
overview 103
Flags pop-up menu 236
Ignored By Make flag 236
Launchable flag 236

Precompiled File flag 236
Resource File flag 235
floating a window 62
Floating Document Interface. *See* FDI.
floating window type 58
focus bar 46
Folder Compare Results window 132
Files In Both Folders pane 134
Files Only In Destination pane 134
Files Only In Source pane 134
Pane Collapse box 133
Pane Expand box 133
pane resize bar 133
Selected Item group 134
folders
comparing 132
searching (multiple) 111
Font & Tabs panel 221
options
Font 249
Scripts 257
Size 258
Tab indents selection 259
Tab Inserts Spaces 259
Tab Size 259
Font & Tabs preference panel 219, 221
options
Auto Indent 220
Font 220
Script 220
Size 220
Tab indents selection 220
Tab Inserts Spaces 220
Tab Size 220
Font option
Font & Tabs panel 249
Font Preferences option
Editor Settings panel 250
Font Settings 221
Foreground option
Text Colors panel 250
Freescale Website command 289
function
New Data Member 152
functions
creating new member 151
locating 95, 96
Functions list pop-up 76
sorting alphabetically 96, 97
using 96
Functions option 223

G

General section, of IDE preference panels 203
Generate Browser Data From option 250
Compiler 250
Language Parser 250
Language Parser, Macro file 251
Language Parser, Prefix file 251
None 250
Generate Constructor and Destructor 166
Get Next Completion menu command 287
Get next symbol 84
Get Previous Completion menu command 287
Get previous symbol 84
Globals option 223
Go Back 144
Go Back menu command 287
Go Forward 144
Go Forward menu command 288
Go To Line menu command 288
going back 97
going forward 97
going to a particular line 97
gray background, adding behind IDE. *See* Use Multiple Document Interface, turning on.
gray background, removing from behind IDE. *See* Use Multiple Document Interface, turning off.
Grid Size X option
Layout Editor panel 251
Grid Size Y option
Layout Editor panel 251
group management 44
grouping
regular expressions 124
groups
moving 45
removing 44

renaming 46
Selected Item 134
touching 47
touching all 47
untouching 47
untouching all 48

H

headers
caching precompiled headers 251
Help menu 275
Hide Classes 150
Hide Classes pane 153
Hide Floating Toolbar command 288
Hide Main Toolbar command in Toolbar submenu 288
Hide Window Toolbar command 288
hiding
classes pane 150
Hierarchy Control 156
hierarchy window 156
hierarchy windows
changing line views 157
using to view class data 148
Horizontal Center command 288
how to
activate automatic code completion 86
add a keyword to a keyword set 237
add markers to a source file 99
add panes to an editor window 78
add source trees 212
adding subprojects to a project 34
alphabetize Functions list pop-up order 96, 97
apply file differences 131
balance punctuation 84
change line views in a hierarchical window 157
change source trees 212
change the find string 121
choose a default project 31
choose files to compare 128
choose folders to compare 129
close a docked window 64
close a workspace 69
close projects 32
collapse a docked window 64
collapse browser panes 148
collapse the editor window toolbar 76
complete code for data members 91
complete code for parameter lists 92
create a new class 149, 163, 164
create a new data member 169, 170
create a new data members 152
create a new member function 151, 168
create custom project stationery 33
create new projects using project stationery 29
deactivate automatic code completion 87
dock a window by using a contextual menu 60
dock a window by using drag and drop 60
dock windows of the same kind 60
examine items in the Folder Compare Results window 134
expand a docked window 64
expand browser panes 148
expand the editor window toolbar 76
export projects to XML files 31
float a window 62
generate project link maps 180
go to a particular line 97
hide the classes pane 150
import projects saved as XML files 32
indent text blocks 83
look up symbol definitions 100
make a window an MDI Child 63
move a docked window 64
navigate browser data 140
navigate Code Completion window 90
navigate to a marker 99
open a recent workspace 70
open a single-class hierarchical window 158
open a workspace 68
open projects 29
open projects created on other hosts 30
open subprojects 34
open the symbols window 161

open the Target Settings window 227
overstrike text (Windows) 82
print class hierarchies 157
print projects 31
remove a keyword from a keyword set 238
remove a marker from a source file 99
remove all markers from a source file 100
remove panes from an editor window 79
remove source trees 213
replace text in a single file 107
resize panes in an editor window 78
save a copy of a workspace 69
save a workspace 68
save projects 30
search a single file 105
search for text across multiple files 118
search for text across multiple folders 111
search for text across multiple projects 114
search for text across multiple symbolics files 115
search with a text selection 122
select entire routines 82
select item in Code Completion window 91
select lines 82
select multiple lines 82
select rectangular portions of lines 82
select text in editor windows 81
show the classes pane 150
sort the classes list 150
suppress dockable windows 63
toggle automatic punctuation balancing 84
trigger code completion by keyboard 87
trigger code completion from IDE menu bar 86
unapply file differences 132
undock a window 61
unfloat a window 62
unindent text blocks 83
use the default workspace 67
use the Find Next command 121
use the Find Previous command 121
use the Functions list pop-up 96
use the Interfaces list pop-up 96
use the VCS pop-up 77
use virtual space 82
view a file path 41
view browser data by contents 160
view browser data by inheritance 156
view class data from hierarchy window 148

I

icons
- file modification 77
- for data members 151
- for member functions 151

IDE
- and threading 243
- Code Completion window 88
- defined 13
- Edit menu 269
- editing source code 81
- editor 73
- File menu 267
- Help menu 275
- linkers 179
- menu reference 267
- preferences, working with 201
- project manager and build targets 25
- Project menu 272
- Search menu 271
- target settings, working with 225
- tools overview 20
- User's Guide overview 13
- Window menu 270, 274
- workspaces 67

IDE Extras panel
- options
  - Documents 245
  - Find Reference using 249
  - Launch Editor 252
  - Launch Editor w/ Line # 253
  - Projects 255
  - Symbolics 259
  - Use Default Workspace' 260
  - Use External Editor 260
  - Use Multiple Document Interface 261
  - Use Script menu 262
  - Use ToolServer menu 262

Workspaces 264
Zoom windows to full screen 264
IDE Extras preference panel 205
options
Documents 206
Launch Editor 207
Launch Editor w/ Line # 207
Menu bar layout 206
Projects 206
Recent symbolics 206
Use Default workspace 207
Use Multiple Document Interface 207
Use Third Party Editor 206
Use Third Party Editor option 262
IDE Preference Panels list 202
IDE Preference Panels, Font & Tabs 221
IDE Preference Panels, Font Settings 221
IDE preferences
Activate Browser Coloring 223
Activate Syntax Coloring 222
Add 209, 211
Auto Indent 220
Automatic Invocation 214
Background 222
Balance Flash Delay 219
Balance while typing 219
Browser Commands 218
Build before running 204
Case sensitive 214
Change 209, 211
Choose 211
Classes 223
Close Braces, Brackets, And Parentheses 217
Code Completion Delay 214
Comments 222
Compiler thread stack 204
Constants 223
Default file format 219
Disable third party COM plugins 208
Display deprecated items 214
Documents 206
Drag and drop editing 219
Edit 223
Edit Commands 218
Enable Virtual Space 219
Enums 223
Find and compare operations 209
Font 220
Font preferences 218
Foreground 222
Format Braces 216
Functions 223
Globals 223
Indent Braces 216
Indent Case Within Switch Statement 217
Indent Code Within Braces 216
Keywords 222
Language Settings 215
Launch Editor 207
Launch Editor w/ Line # 207
Left margin click selects line 219
Level 208
Macros 223
Menu bar layout 206
Name 211
Other 223
Place Else On Same Line As Closing Brace 216
Place Opening Brace On Separate Line 216
Project Commands 218
Project operations 209
Projects 206
Recent symbolics 206
Recommended 205
Regular Expression 209
Relaxed C popup parsing 219
Remove 209, 211
Save open files before build 204
Script 220
Selection position 218
Set 1, Set 2, Set 3, Set 4 223
Shielded folder list 209
Show message after building up-to-date project 204
Size 220
Sort function popup 219
Source Tree list 211

Strings 222
Tab indents selection 220
Tab Inserts Spaces 220
Tab Size 220
Templates 223
Type 211
TypeDefs 223
Use Automatic Code Formatting 215
Use Concurrent Compiles 205
Use Default workspace 207
Use Local Project Data Storage 204
Use Multiple Document Interface 207
Use multiple undo 219
Use Third Party Editor 206
User Specified 205
VCS Commands 219
Window follows insertion point 214
Window position and size 218
IDE Preferences window 184, 201, 202
Apply button 203
Cancel button 203
Factory Settings button 184, 202
IDE Preference Panels list 202
Import Panel 251
Import Panel button 185, 203
OK button 203
Revert Panel button 184, 202
Save button 185
Ignore Extra Space checkbox 127
Ignored By Make File flag 236
Import button 199
Import Commands 199
Import Components menu command 289
Import Panel 251
Import Project command 32
Import Project menu command 289
importing
projects saved as XML files 32
In Files page 117, 118
In Files tab 110
In Folders page 111
In Folders tab 110
In Projects page 112, 114
In Projects tab 110
In Symbolics page 115
In Symbolics tab 110
Include file cache option
Build Settings panel 251
Include Files 169
Include files 166
`#include` files, caching 251
indenting
text blocks 83
Initial Directory field
Build Extras panel 251
Initializer 170
Insert Template Commands option
Editor Settings panel 252
inspecting
project files 30
Installed Products button 277
Integrated Development Environment. *See* IDE.
interface files
locating 95
Interface menu 47
Interfaces list pop-up
in Files view of Project window 40
using 96
interfaces list pop-up 76

J

Java Exceptions submenu
All Exceptions command 278
Exceptions In Targeted Classes command 284
Java submenu 278, 284

K

Key Bindings 183, 185
Add 197
Customize 196
key bindings 101
keyboard conventions 16
keyboard shortcuts
Find symbols with prefix 84
Find symbols with substring 84
Get next symbol 84
Get previous symbol 84

keys
Quote Key prefix 199
keywords
adding to a keyword set 237
removing from a keyword set 238
Keywords option
Text Colors panel 252

L

Language Parser option, in Generate Browser Data From menu 250
Launch Editor option
IDE Extras panel 252
Launch Editor w/ Line # option
IDE Extras panel 253
Launchable flag 236
Layout Editor panel
options
Grid Size X 251
Grid Size Y 251
layout management 44
layouts
moving 45
removing 44
renaming 46
Left Edges command 289
Left margin click selects line option
Editor Settings panel 253
Level option
Plugin Settings panel 253
line
going to in source code 97
line and column indicator, in editor window 78
`%line` command-line string 253
Line Display 156
lines, selecting 82
lines, selecting multiple 82
lines, selecting rectangular portions of 82
link maps
generating for projects 180
Link Order page 43
Link Order tab 44
Link Order view 31, 45, 46
Linker option
Target Settings panel 254
linkers 179
choosing 179
linking projects 180
list
of symbols in Browser Contents window 159
list boxes
File Set 117
Project 113
Symbolics 115
Target 113
list menus
document settings 76
functions 76
interfaces 76
markers 76
VCS 77
list pop-up menus
Current Target 38
list pop-ups
Ancestor 156
Browser Access Filters 144
document settings 76
functions 76
interfaces 76
markers 76
Symbols 159
VCS 146
lists
File 113
File Mappings 243
File Set 117
Symbolics 115
locating functions 95, 96
locating interface files 95
locating source code 95
looking up symbol definitions 100

M

Mac OS
QuickHelp 100
QuickView 100

Macro file option, in Generate Browser Data From menu 251
Macros option 223
Make command 46, 47
Make menu command 289
Make option 249
Make toolbar button 38
managing
build targets 48
projects 29
targets 48
managing files, tasks 51
manual conventions 15
markers 98
adding to a source file 99
navigating to 99
removing all from source files 100
removing from source files 99
Markers list pop-up 76
Markers list, in Remove Markers window 99
Match Whole Word checkbox 104, 106, 110
matching
any character with regular expressions 124
replace strings to find strings with regular expressions 125
with simple regular expressions 124
Maximize Window menu command 289
.mcp 29
MDI 207, 261
and dockable windows 57
making a window an MDI child 63
Member Function Declaration 168
member functions
creating 151, 168
identifier icons 151
Member Functions pane 151
in Class Browser window 145
memory dump 303
Menu
Current Target 195
menu
Search 100
menu commands
About CodeWarrior 277
Add Files 277
Add Window 277
Apply Difference 131, 278
Balance 278
Bottom Edges 278
Break 279
Break On C++ Exception 279
Break on Java Exceptions 279
Bring To Front 279
Bring Up To Date 279
Browser Contents 279
Build Progress 279
Build Progress Window 279
Can't Redo 269
Can't Undo 269
Cascade 280
Check Syntax 280
Class Browser 280
Class Hierarchy 280
Class Hierarchy Window 280
Clear 280
Close 281
Close All 281
Close All Editor Documents 281
Close Catalog 281
Close Workspace 281
CodeWarrior Help 282
Collapse Window 282
Commands & Key Bindings 281
Compare Files 128, 282
Compile 282
Complete Code 282
Copy 282
Copy To Expression 282
Create Design 283
Create Group 283
Create Target 283
Delete 283
Disassemble 283
Display Grid 283
Enter Find String 121, 284
Enter Replace String 284
Errors And Warnings 284
Errors And Warnings Window 284

Exit 284
Expand Window 285
Export Project 285, 289
Find 105, 285
Find and Open 'Filename' 286
Find and Open File 286
Find And Replace 287
Find Definition 285
Find Definition & Reference 285
Find In Files 286
Find In Next File 286
Find In Previous File 286
Find Next 121, 286
Find Previous 121, 286
Find Previous Selection 286
Find Reference 287
Find Selection 122, 287
Freescale Website 289
Get Next Completion 287
Get Previous Completion 287
Go Back 287
Go Forward 288
Go To Line 288
Hide Window Toolbar 288
Import Components 289
Import Project 289
Make 289
Maximize Window 289
Minimize Window 290
New 290
New Class 290
New Class Browser 290
New Data 290
New Event 290
New Event Set 290
New Member Function 290
New Method 291
New Property 291
New Text File 291
Open 291
Open Recent 291
Open Scripts Folder 291
Open Workspace 291
Page Setup 292
Precompile 292
Preferences 292
Print 292
Redo 293
Refresh All Data 293
Remove Object Code 293
Remove Object Code & Compact 293
Remove Toolbar Item 195
Replace 107, 293, 294
Replace All 294
Replace and Find Next 294
Revert 296
Save Default Window 297
Save Workspace 297
Save Workspace As 297
Select All 297
Send To Back 297
Set Default Project 297
Set Default Target 297
Shift Right 297, 298
Show Types 298
Show Window Toolbar 288
Stack Editor Windows 298
Stop Build 298
Switch To Monitor 298
Synchronize Modification Dates 299
Unapply Difference 132
View As Unsigned Decimal 302
View Disassembly 303
View Mixed 303
View Source 303
View Variable 303
Zoom Window 303
menu layouts
Windows 267
menu reference
for IDE 267
menus 144
VCS 152
Minimize Window menu command 290
moving
build targets 45
dockable windows 64
files 45

groups 45
layouts 45
targets 45
Multi-Class Hierarchy window 155, 158
Multiple Document Interface. *See* MDI.
multiple files, searching 118
multiple folders, searching 111
multiple projects, searching 114
multiple Redo 293
multiple symbolics files, searching 115
multiple Undo 293
multiple-file Find and Replace window 108

N

Name field 185
navigating
browser data 140
Code Completion window 90
to markers 99
navigating data 140
navigating source code 95
New Binding 185, 198
New C++ Class window 164
New C++ Data Member window 170
New C++ Member Function window 168
New Class Browser menu command 290
New Class menu command 290
New Class wizard 149, 163, 164
New Command 186
New command 51
New Command Group
Create 186
New Data Member 152, 168, 170
new data member functions
creating 169
New Data Member wizard 152, 169, 170
New Data menu command 290
New Event menu command 290
New Event Set menu command 290
New Group 186
New Item 149
New Member Function menu command 290
New Member Function wizard 151, 168
new member functions
creating 168
New Menu Command
Create 186, 190
New menu command 290
New Method menu command 291
New Property menu command 291
New Text File menu command 291
Next Result button 120
None option
of Plugin Diagnostics 253
None option, in Generate Browser Data From menu 250
non-modal, defined 59
notes
for the latest release 13
Numeric Keypad Bindings 197
Numeric Keypad Bindings checkbox
of Customize IDE Commands window 200

O

Only Show Different Files checkbox 128
Open command 52
Open File 152
Open In Windows Explorer command 41
Open menu command 291
Open Recent menu command 291
Open Scripts Folder menu command 291
Open Workspace menu command 291
opening 161
a recent workspace 70
a single-class hierarchical window 158
files 52
projects 29
projects from other hosts 30
subprojects 34
symbols window 161
workspaces 68
opening last project (default workspace) 260
opening last project, preventing (default workspace) 260
option buttons
All text 105, 107, 110
Code Only 105, 107, 110
Comments Only 105, 107, 110

options
Access Paths settings panel 208, 229
Activate Browser 285
Activate Browser Coloring 239
Activate Syntax Coloring 239, 243
Add Default 239
Always Search User Paths 239
Application 240
Arguments 240
Attempt to use dynamic type of C++, Object Pascal and SOM objects 240
Auto Indent 240
Auto Target Libraries 240
Automatic Invocation 240
Auto-target Libraries 240
Background 241
Balance Flash Delay 241
Balance while typing 241
Bring Up To Date 249
Browser Commands 242
Browser Path 242
Build before running 242
Build Extras settings panel 232
Build Settings preference panel 203
Case Sensitive 242
Classes 223
Code Completion Delay 242
Code Completion preference panel 213
Code Formatting preference panel 215
Collapse non-debugging windows 243
Comments 243
Compiler 243
Compiler thread stack 243
Concurrent Compiles preference panel 204
Confirm invalid file modification dates when debugging 243
Constants 223
Context popup delay 244
Disable third party COM plugins 244
Display Deprecated Items 244
Do nothing 244
Do nothing to project windows 244
Drag and drop editing 245
Dump internal browse information after compile 245
Edit Commands 245
Edit Language 245
Editor preference panels 213
Editor Settings preference panel 217
Enable automatic Toolbar help 245
Enable Virtual Space 246
Enums 223
Environment Settings 246
Failure 249
File Mappings settings panel 234
File Type 243
Font & Tabs preference panel 219, 221
Functions 223
General preference panels 203
Generate Browser Data From 250
Globals 223
IDE Extras preference panel 205
Import Panel 251
Macros 223
Make 249
Other 223
Plugin Settings preference panel 207
Set 1, Set 2, Set 3, Set 4 223
setting for browser 137
Shielded Folders preference panel 208
Source Trees preference panel 210
Target Settings panel 227
Templates 223
TypeDefs 223
Use Multiple Document Interface 57
Window Follows Insertion Point 263
other editor windows 77
Other option 223
Output Directory option
Target Settings panel 254
Overlays tab 44
overstrike 82
overstriking text (Windows) 82
overtype. *See* overstrike.
overview
of browser 21
of build system 21

of CodeWarrior 17
of debugger 21
of editor 20
of IDE project manager and build targets 25
of IDE tools 20
of IDE User's Guide 13
of project manager 20
of search engine 20

P

Page Setup command 292
pages
In Files 117
In Folders 111
in project window 39
In Projects 112
In Symbolics 115
Pane Collapse 148
Pane Collapse box 133
Pane Expand 148
Pane Expand box 133
Pane resize bar 120, 131, 133
pane resize bar
in File Compare Results window 131
in Folder Compare Results window 133
pane splitter controls, in editor window 78
panels
Font & Tabs 221
panes
adding to editor window 78
Destination 131
Differences 131
Files in Both Folders 134
Files Only in Destination 134
Files Only in Source 134
removing from editor window 79
resizing in an editor window 78
Results 120
Source 131
Source Code 120
parameter lists
completing code 92
path caption 77
Play sound after 'Bring Up To Date' & 'Make' option
Build Settings panel 254
Plugin Diagnostics
All Info option 253
Errors Only option 253
None option 253
plug-in diagnostics
disabling 277
enabling 277
Plugin Settings panel
options
Level 253
Plugin Settings preference panel 207
options
Disable third party COM plugins 208
Level 208
plug-ins
saving information about those installed in IDE 277
viewing those installed in IDE 277
pop-up menus
document settings 76
functions 76
interfaces 76
markers 76
VCS 77
pop-ups
Ancestor 156
Browser Access Filters 144
Symbols 159
VCS 146
Post-linker option
Target Settings panel 254
Precompile menu command 292
Precompiled File flag 236
precompiled headers
caching 251
preference panels
Build Settings 203
Code Completion 213
Code Formatting 215
Concurrent Compiles 204
Editor Settings 217

Font & Tabs 219, 221
IDE Extras 205
Plugin Settings 207
reverting 256
Shielded Folders 208
Source Trees 210
preferences
Activate Browser Coloring 223
Activate Syntax Coloring 222
Add 209, 211
Apply button 203
Auto Indent 220
Automatic Invocation 214
Background 222
Balance Flash Delay 219
Balance while typing 219
Browser Commands 218
Build before running 204
Cancel button 203
Case sensitive 214
Change 209, 211
Choose 211
Classes 223
Close Braces, Brackets, And Parentheses 217
Code Completion Delay 214
Comments 222
Compiler thread stack 204
Constants 223
Default file format 219
Disable third party COM plugins 208
Display deprecated items 214
Documents 206
Drag and drop editing 219
Edit 223
Edit Commands 218
Editor 213
Enable Virtual Space 219
Enums 223
Export Panel button 184, 202
Factory Settings button 184, 202
Find and compare operations 209
Font 220
Font preferences 218
for IDE 201
Foreground 222
Format Braces 216
Functions 223
General 203
Globals 223
IDE Preference Panels list 202
IDE window 201
Import Panel button 185, 203
Indent Braces 216
Indent Case Within Switch Statement 217
Indent Code Within Braces 216
Keywords 222
Language Settings 215
Launch Editor 207
Launch Editor w/ Line # 207
Left margin click selects line 219
Level 208
Macros 223
Menu bar layout 206
Name 211
OK button 203
Other 223
Place Else On Same Line As Closing Brace 216
Place Opening Brace On Separate Line 216
Project Commands 218
Project operations 209
Projects 206
Recent symbolics 206
Recommended 205
Regular Expression 209
Relaxed C popup parsing 219
Remove 209, 211
Revert Panel button 184, 202
Save button 185
Save open files before build 204
Script 220
Selection position 218
Set 1, Set 2, Set 3, Set 4 223
Shielded folder list 209
Show message after building up-to-date project 204
Size 220

Sort function popup 219
Source Tree list 211
Strings 222
Tab indents selection 220
Tab Inserts Spaces 220
Tab Size 220
Templates 223
Type 211
TypeDefs 223
Use Automatic Code Formatting 215
Use Concurrent Compiles 205
Use Default workspace 207
Use Local Project Data Storage 204
Use Multiple Document Interface 207
Use multiple undo 219
Use Third Party Editor 206
User Specified 205
VCS Commands 219
Window follows insertion point 214
Window position and size 218
Preferences menu command 292
Prefix file option, in Generate Browser Data From menu 251
prefix keys
Quote Key 199
Pre-linker option
Target Settings panel 255
Previous Result button 120
print
file selections 55
Print command 55, 292
printing
class hierarchies 157
files 55
projects 31
process cycle
of software development 17
products
saving information about those installed in IDE 277
viewing those installed in IDE 277
Project Commands option
Editor Settings panel 255
project data folder 261
Project Headers checkbox 113
Project Inspector command 30
Project list box 113
project manager 25
overview 20
Project menu 255, 272
Remove Object Code command 273
Stop Build command 273
Project operations option
Shielded Folders panel 255
Project Sources checkbox 113
project stationery
creating 33
custom 32
Project window
about Files page 39
Current Target list pop-up 38
Files view
Checkout Status column 40
Code column 40
Data column 40
Debug column 40
File column 40
Interfaces list pop-up 40
Sort Order button 40
Target column 40
Touch column 40
Make toolbar button 38
Synchronize Modification Dates toolbar button 38
Target Settings toolbar button 38
project window 37
Link Order page 43
pages 39
Targets page 43
project window, about 37
project, defined 25
projects
about subprojects 33
advanced topics 32
choosing default 31
closing 32
creating custom stationery 33
creating subprojects 34

creating using stationery 29
data folder 261
exporting to XML files 31
generating link maps for 180
importing XML versions of 32
inspecting files 30
linking 180
managing 29
opening 29
opening from other hosts 30
printing 31
project window 37
project window pages 39
project window, about 37
reopening last one used (default workspace) 260
reopening last one used, preventing (default workspace) 260
saving 30
searching (multiple) 114
strategies for 34
subprojects, strategies for 35
working with 25
Projects option
IDE Extras panel 255
punctuation balancing, toggling 84
punctuation, balancing 84
pure virtual
icon for 151
purpose
of Browser Contents window 159
of Classes pane in browser 149
of Data Members pane 151
of Member functions pane 151
of Multi-Class Hierarchy window 155
of Single-Class Hierarchy window 158
of Source pane 152
of status area in browser 153
of Symbols window 160

Q

QuickHelp (Mac OS) 100
QuickView 100
Quote Key prefix 199
assigning 200

R

Recursive Search column, in Access Paths panel 232
Redo button 131
Redo menu command 293
reference information
for IDE menus 267
Refresh All Data menu command 293
Registry Key option
of Source Trees preference panel 260
Registry Key option, in Type pop-up menu 260
Regular Expression checkbox 104, 107, 110
Regular Expression option
Shielded Folders panel 255
regular expressions 122
`.*[_]Data` 210
`\(.*\)` 209
choosing one character from many 124
`CVS` 210
defined 122
grouping 124
matching any character 124
matching simple expressions 124
using the find string in the replace string 125
Relative to class field 165
Relaxed C popup parsing option
Editor Settings panel 256
release notes 13
remembering last project (default workspace) 260
remembering last project, turning off (default workspace) 260
Remove A Set button 117
Remove button 231
Remove button, in Remove Markers window 99
Remove command 44
Remove Markers window 98
Cancel button 99
Done button 99
Markers list 99
Remove button 99

Remove Object Code & Compact menu command 293
Remove Object Code menu command 293
Remove Toolbar Item 195
removing
build targets 44, 49
desktop background from behind IDE. *See* Use Multiple Document Interface, turning on.
files 44
gray background from behind IDE. *See* Use Multiple Document Interface, turning off.
groups 44
layouts 44
source trees 213
targets 44, 49
Rename command 46, 50
renaming
build targets 46, 50
files 46
groups 46
layouts 46
targets 46, 50
reopening last project used
in default workspace 260
suppressing in the default workspace 260
Replace All button 106, 109
Replace All menu command 294
Replace and Find Next menu command 294
Replace and Find Previous command 294
Replace button 106, 109
Replace command 107
Replace menu command 293, 294
Replace With text/list box 106, 109
replacing
text in a single file 107
text, overview 103
Reset Window Toolbar command in Toolbar submenu 42, 295
resetting
toolbars 195
resize bars
Pane 120
Resize submenu
To Smallest Height command 301
To Smallest Width command 301
resizing
panes in an editor window 78
Resource File flag 235
Restore Window command (Windows) 296
Result Count text box 119
results
of multi-item search 118
Results pane 120
Revert command 55
Revert menu command 296
reverting
files 55
preference panels 256
settings panels 256
revision control 263
routine, selecting entirely 82
Run command 47
Runtime Settings panel
options
Working Directory 264

S

Save a Copy As command 54
Save All command 53
Save command 53
Save Default Window menu command 297
Save open files before build option
Build Settings panel 256
Save project entries using relative paths option
Target Settings panel 41, 42, 257
Save This Set button 117
Save Workspace As menu command 297
Save Workspace menu command 297
saving
a copy of a workspace 69
all files 53
file copies 54
files 53
information about installed plug-ins 277
information about installed products 277
projects 30
workspaces 68

(Scripts) folder 291
Scripts option
    Font & Tabs panel 257
search
    single characters with regular expressions 124
    using finds strings in replace strings with regular expressions 125
Search Cached Sub-Targets checkbox 113
Search Criteria text box 119
search engine
    overview 20
Search In text/list box 111
Search menu 100, 271
Search Results window 118
    Next Result button 120
    Pane resize bar 120
    Previous Result button 120
    Result Count text box 119
    Results pane 120
    Search Criteria text box 119
    setting default size and position of 297
    Source Code pane 120
    Source Code Pane disclosure triangle 120
    Stop button 120
    Warnings button 120
Search Selection Only checkbox 105, 107
Search Status column, in Access Paths panel 231
Search Sub-Folders checkbox 111
Search Up checkbox 104, 107
searching
    choosing one character from many in regular expressions 124
    grouping regular expressions 124
    multiple files 118
    multiple folders 111
    multiple projects 114
    multiple symbolics files 115
    single characters with regular expressions 124
    single files 105
    using finds strings in replace strings with regular expressions 125
    using regular expressions 122
    with simple regular expressions 124
seeing desktop background behind IDE. *See* Use Multiple Document Interface, turning off.
Segments tab 44
Select All menu command 297
Selected Item group 134
selecting
    Code Completion window items 91
    text in editor windows 81
selecting entire routines 82
selecting lines 82
selecting multiple lines 82
selecting rectangular portions of lines 82
Selection position option
    Editor Settings panel 257
selections
    searching (text) 122
Send To Back menu command 297
Set 1, Set 2, Set 3, Set 4 223
Set Default Project command 31
Set Default Project menu command 297
Set Default Target menu command 297
setting
    browser options 137
setting default size and position of windows 297
settings
    Add 211, 231, 236
    Add Default 231
    Always Search User Paths 230
    Application 234
    Apply button 227
    Arguments 234
    Cache subprojects 233
    Cancel button 227
    Change 211, 231, 236
    Choose 211, 228
    Clear 229
    Compiler 236
    Dump internal browse information after compile 234
    Edit Language 236
    Export Panel button 226
    Extension 235
    Factory Settings button 226

File Mappings list 235
File Type 235
Flags 236
Generate Browser Data From 234
Host Flags 231
IDE window 225
Ignored By Make flag 236
Import Panel button 227
Initial directory 234
Launchable flag 236
Linker 228
Name 211
OK button 227
Output Directory 228
Post-linker 228
Precompiled File flag 236
Pre-linker 228
Remove 211, 231, 236
Resource File flag 235
Revert Panel button 226
Save project entries using relative paths 229
Source Tree list 211
Target Name 228
Target Settings Panels list 226
Type 211
Use modification date caching 233
settings panels
Access Paths 208, 229
Build Extras 232, 285
File Mappings 234
reverting 256
Source Trees 210
Target Settings 227
setup
code completion 86
Shielded Folders panel
options
Find and compare operations 249
Project operations 255
Regular Expression 255
Shielded Folders preference panel 208
options
Add 209
Change 209
Find and compare operations 209
Project operations 209
Regular Expression 209
Remove 209
Shielded folder list 209
Shift Right menu command 297, 298
shortcut conventions 16
Show Classes 150
Show Classes pane 153
Show Floating Toolbar command 288
Show Floating Toolbar command in Toolbar submenu 298
Show Inherited 145
Show Main Toolbar command 288
Show message after building up-to-date project option
Build Settings panel 258
Show private 146
Show protected 146
Show public 146
Show Types menu command 298
Show Window Toolbar command 288
Show Window Toolbar command in Toolbar submenu 298
showing
classes pane 150
shrinking panes, in browser 148
Single Class Hierarchy Window 144
single files, searching 105
single-class hierarchical window
opening 158
Single-Class Hierarchy window 158
difference from Multi-Class Hierarchy window 158
single-file Find and Replace window 105
single-file Find window 103
Size option
Font & Tabs panel 258
software
development process cycle 17
Sort Alphabetical 149, 150
Sort function popup option
Editor Settings panel 258
Sort Hierarchical 149, 150

Sort Order button
in Files view of Project window 40
sorting
classes list 150
Functions list pop-up (alphabetically) 96, 97
Source box 127
source code
editing 81
going to a particular line 97
locating 95
Source Code pane 120
Source Code Pane disclosure triangle 120
source code, navigating 95
source file
adding markers to 99
source files
removing all markers from 100
removing markers from 99
source item, for comparison 126
Source pane 131, 152
in Symbols window 162
source relative includes 258
source trees
adding 212
changing 212
removing 213
Source Trees panel
options
Add 211
Change 211
Choose 211
Name 211
Remove 211
Source Tree list 211
Type 211, 260
Source Trees preference panel 210
Absolute Path option 260
Environment Variable option 260
Registry Key option 260
Source Trees settings panel 210
Stack Editor Windows menu command 298
static
icon for 151
stationery
creating for projects 33
creating projects 29
custom 32
Status area
in Class Browser window 145
status area 153
Stop At End Of File checkbox 104, 107
Stop Build menu command 298
Stop button 109, 120
Stop command 298
Straight Line 157
strategies
for build targets 34
for projects 34
for subprojects 35
Strings option
Text Colors panel 258
submenus
Align 277, 278
subproject, defined 33
subprojects
creating 34
opening 34
strategies for 35
Success option
Build Settings panel 259
Switch To Monitor menu command 298
symbol definitions 100
symbol definitions, looking up 100
symbol implementations
viewing all 161
symbol-editing shortcuts 83
symbolics files
searching (multiple) 115
Symbolics list 115
Symbolics list box 115
Symbolics option
IDE Extras panel 259
symbols
shortcuts for editing 83
viewing all implementations 161
Symbols list
in Browser Contents window 159
Symbols pane 162

Symbols pop-up 159
Symbols window 160
Source pane 162
Symbols pane 162
toolbar 162
symbols window 161
Synchronize Modification Dates command 43
Synchronize Modification Dates menu command 299
Synchronize Modification Dates toolbar button 38
System Headers checkbox 113
System Paths list
Recursive Search column 232
Search Status column 231
System Paths option
Access Paths panel 259

T

Tab indents selection option
Font & Tabs panel 259
Tab Inserts Spaces option
Font & Tabs panel 259
Tab Size option
Font & Tabs panel 259
tabs
In Files 110
In Folders 110
In Projects 110
In Symbolics 110
Target column
in Files view of Project window 40
Target list box 113
target management 44
Target Name option
Target Settings panel 260
target settings
Add 211, 231, 236
Add Default 231
Always Search User Paths 230
Application 234
Apply button 227
Arguments 234
Cache subprojects 233
Cancel button 227
Change 211, 231, 236
Choose 211, 228
Clear 229
Compiler 236
Dump internal browse information after compile 234
Edit Language 236
Export Panel button 226
Extension 235
Factory Settings button 226
File Mappings list 235
File Type 235
Flags 236
for IDE 225
Generate Browser Data From 234
Host Flags 231
Ignored By Make flag 236
Import Panel button 227
Initial directory 234
Launchable flag 236
Linker 228
Name 211
OK button 227
Output Directory 228
Post-linker 228
Precompiled File flag 236
Pre-linker 228
Remove 211, 231, 236
Resource File flag 235
Revert Panel button 226
Save project entries using relative paths 229
Source Tree list 211
Source Trees 210
Target Name 228
Target Settings Panels list 226
Type 211
Use modification date caching 233
Target Settings command 299
Target Settings panel 50, 227
options
Choose 228
Clear 229
Linker 228, 254

Output Directory 228, 254
Post-linker 228, 254
Pre-linker 228, 255
Save project entries using relative paths 41, 42, 229, 257
Target Name 228, 260
target settings panels
Access Paths 229
Build Extras 232, 285
File Mappings 234
Target Settings 227
Target Settings Panels list 226
Target Settings toolbar button 38
Target Settings window 225
Apply button 227
Cancel button 227
Export Panel button 226
Factory Settings button 226
Import Panel button 227
OK button 227
opening 227
Revert Panel button 226
Target Settings Panels list 226
targets 27
configuring 50
creating 48
files 44
managing 48
moving 45
removing 44, 49
renaming 46, 50
setting default 49
strategies for 34
Targets page 43
Targets tab 50
Targets view 31, 45, 48
tasks
activating automatic code completion 86
adding a keyword to a keyword set 237
adding markers to a source file 99
adding panes to an editor window 78
adding source trees 212
adding subprojects to a project 34
alphabetizing Functions list pop-up order 96, 97
applying file differences 131
balancing punctuation 84
changing line views in a hierarchical window 157
changing source trees 212
changing the find string 121
choosing a default project 31
choosing files to compare 128
choosing folders to compare 129
closing a docked window 64
closing a workspace 69
closing projects 32
collapsing a docked window 64
collapsing browser panes 148
collapsing the editor window toolbar 76
completing code for data members 91
completing code for parameter lists 92
creating a new class 149, 163, 164
creating a new data member 152, 169, 170
creating a new member function 151, 168
creating custom project stationery 33
creating new projects using project stationery 29
deactivating automatic code completion 87
docking a window by using a contextual menu 60
docking a window by using drag and drop 60
docking windows of the same kind 60
examining items in the Folder Compare Results window 134
expanding a docked window 64
expanding browser panes 148
expanding the editor window toolbar 76
exporting projects to XML files 31
floating a window 62
for managing files 51
generating project link maps 180
going to a particular line 97
hiding the classes pane 150
importing projects saved as XML files 32
indenting text blocks 83

looking up symbol definitions 100
making a window an MDI child 63
moving a docked window 64
navigating browser data 140
navigating Code Completion window 90
navigating to a marker 99
opening a recent workspace 70
opening a single-class hierarchical window 158
opening a workspace 68
opening projects 29
opening projects created on other hosts 30
opening subprojects 34
opening the symbols window 161
opening the Target Settings window 227
overstriking text (Windows) 82
printing class hierarchies 157
printing projects 31
removing a keyword from a keyword set 238
removing a marker from a source file 99
removing all markers from a source file 100
removing panes from an editor window 79
removing source trees 213
replacing text in a single file 107
resizing panes in an editor window 78
saving a copy of a workspace 69
saving a workspace 68
saving projects 30
searching a single file 105
searching for text across multiple files 118
searching for text across multiple folders 111
searching for text across multiple projects 114
searching for text across multiple symbolics files 115
searching with a text selection 122
selecting entire routines 82
selecting item in Code Completion window 91
selecting lines 82
selecting multiple lines 82
selecting rectangular portions of lines 82
selecting text in editor windows 81
showing the classes pane 150
sorting the classes list 150
suppressing dockable windows 63
toggling automatic punctuation balancing 84
triggering code completion by keyboard 87
triggering code completion from IDE menu bar 86
unapplying file differences 132
undocking a window 61
unfloating a window 62
unindenting text blocks 83
using the default workspace 67
using the Find Next command 121
using the Find Previous command 121
using the Functions list pop-up 96
using the Interfaces list pop-up 96
using the VCS pop-up 77
using virtual space 82
viewing a file path 41
viewing browser data by contents 160
viewing browser data by inheritance 156
viewing class data from hierarchy windows 148
Templates option 223
text
changing a find string 121
find by selecting 120
finding 103
overstriking (Windows) 82
replacing 103
searching with a selection 122
text blocks, indenting 83
text blocks, unindenting 83
text boxes
Result Count 119
Search Criteria 119
Text Colors panel
options
Activate Browser Coloring 250
Activate Syntax Coloring 250, 252, 258
Foreground 250
Keywords 252
Strings 258

Text Colors preference panel
options
Activate Browser Coloring 223
Activate Syntax Coloring 222
Background 222
Classes 223
Comments 222
Constants 223
Edit 223
Enums 223
Foreground 222
Functions 223
Globals 223
Keywords 222
Macros 223
Other 223
Set 1, Set 2, Set 3, Set 4 223
Strings 222
Templates 223
TypeDefs 223
text editing area, in editor window 78
text/list boxes
By Type 111
Find 104, 106, 109
Replace With 106, 109
Search in 111
text-selection Find 120
THINK Reference 100
third-party editor support 262
third-party text editors
Emacs 253
threading in IDE 243
__throw() 279
Tile Editor Windows command 299
Tile Editor Windows Vertically command 299
Tile Horizontally command 299
Tile Vertically command 300
To Smallest Height command in Resize submenu 301
To Smallest Width command in Resize submenu 301
toolbar
collapsing in editor window 76
expanding in editor window 76
Toolbar (Editor Window) Elements
Document Settings 195
File Dirty Indicator 195
File Path field 195
Functions 195
Header Files 195
Markers 195
Version Control Menus 195
toolbar buttons
Browser Contents 144
Class Hierarchy 144
Go Back 144
Go Forward 144
Make 38
Single Class Hierarchy Window 144
Synchronize Modification Dates 38
Target Settings 38
Toolbar Items 183, 194
Toolbar submenu
Anchor Floating Toolbar command 278
Clear Floating Toolbar command 280
Clear Main Toolbar command 281
Clear Window Toolbar command 281
Hide Floating Toolbar command 288
Hide Main Toolbar command 288
Reset Window Toolbar command 42, 295
Show Floating Toolbar command 288, 298
Show Main Toolbar command 288
Show Window Toolbar command 298
Toolbars
Add element 193, 194
Clear Elements 195
Customize 192
Elements 192, 193
Icons 194
Instances of 193
Main (floating) 193
Modify 193
Project and Window 193
Remove single element 194
Toolbar Items tab 193
Types 193
toolbars
editor 75

for Symbols window 162
resetting 195
tools
browser 21
build system 21
debugger 21
editor 20
project manager 20
search engine 20
ToolServer menu 262
ToolTip 194
touch
defined 40
Touch column 47, 48
in Files view of Project window 40
Touch command 47
touching
all files 47
all groups 47
files 47
groups 47
triggering
code completion by keyboard 87
code completion from IDE menu bar 86
Type list box
Absolute Path option 260
Type option
Source Trees panel 260
Type pop-up menu
Environment Variable option 260
Registry Key option 260
TypeDefs option 223

U

Unanchor Floating Toolbar command 301
Unapply button 131
Unapply Difference command 132, 302
Undo button 131
Undo command 302
undocking windows 61
unfloating windows 62
Ungroup command 302
unindenting text blocks 83
Untouch command 47
untouching
a file 47
a group 47
all files 48
all groups 48
Use Concurrent Compiles option 255
Use Default Workspace option 260
Use External Editor option 260
Use Local Project Data Storage option 261
Use modification date caching option 261
Use Multiple Document Interface option 57, 261
turning off 207
turning on 207
Use multiple undo option 302
in Editor Settings panel 262
Use Script menu option 262
Use Third Party Editor option 262
Use ToolServer menu option
IDE Extras panel 262
User Paths list
Recursive Search column 232
Search Status column 231
User Paths option 262
User Specified option 263
using
Find Next command 121
Find Previous command 121
Functions list pop-up 96
Interfaces list pop-up 96
VCS pop-up 77
virtual space 82

V

VCS 77
list pop-up 146
pop-up 77
VCS Commands option
Editor Settings panel 263
VCS menu 152, 263
VCS pop-up
using 77
version control 263
Version Control Settings command 302
Version Control System. *See* VCS.

Vertical Center command in Align submenu 296, 300, 301, 302
View as implementor 146
View as subclass 146
View As Unsigned Decimal menu command 302
View as user 146
View Disassembly menu command 303
View Memory As command 303
View Memory command 303
View Mixed menu command 303
View Source menu command 303
View Variable menu command 303
viewing
    all symbol implementations 161
    browser data by contents 160
    browser data by inheritance 156
    file paths 41
viewing installed plug-ins 277
viewing installed products 277
virtual
    icon for 151
virtual space, using 82

W

Warnings button 120
window
    Customize IDE Commands 196
Window Follows Insertion Point option 263
Window menu 270, 274
    Restore Window command (Windows) 296
Window position and size option
    Editor Settings panel 264
window types
    docked 58
    floating 58
    MDI child 58
Windows
    creating files 51
windows
    Browser Contents 159
    Class Browser 143
    Code Completion 88
    Compare Files Setup 126
    Customize IDE Commands 121
    dock bars in dockable windows 63
    dockable 57
    dockable, about 57
    dockable, turning off 63
    dockable, working with 59
    docking the same kind of 60
    docking with a contextual menu 60
    docking with drag and drop 60
    editor 73
    editor, other 77
    File Compare Results 130
    Find (single-file) 103
    Find and Replace (multiple-file) 108
    Find and Replace (single-file) 105
    floating 62
    Folder Compare Results 132
    hierarchy 156
    IDE Preferences 201
    making MDI children of 63
    New C++ Class 164
    New C++ Data Member 170
    New C++ Member Function 168
    project window 37
    remembering size and position of 297
    Remove Markers 98
    saving default size and position of 297
    Search results 118
    Target Settings 225
    undocking 61
    unfloating 62
Windows menu layout 267
WinHelp (Windows) 100
Wizards
    Browser 163
wizards
    New Class 149, 163, 164
    New Data Member 152, 169, 170
    New Member Function 168
    New Member Functions 151
working
    with IDE preferences 201
    with IDE target settings 225
Working Directory option
    Runtime Settings panel 264

working with 59
    browser 137
    class browser windows 143
    class hierarchy windows 155
working with dockable windows 59
working with files 51
working with projects 25
workspace, defined 67
workspaces 67
    closing 69
    opening 68
    opening recent 70
    saving 68
    saving copies of 69
    using default 67
Workspaces option
    IDE Extras panel 264
workspaces, about 67

X

XML
    exporting projects 31
    importing projects 32

Z

Zoom Window menu command 303
Zoom windows to full screen option
    IDE Extras panel 264